Enhancement and Innovation in Higher Education conference

11 - 13 June 2013: conference materials

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Post-conference publication: Enhancement and Innovation in Higher Education conference

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Post-conference publication: Enhancement and Innovation in Higher Education conference

2013 marks 10 years of the Scottish higher education Enhancement Themes and to celebrate this remarkable achievement, our annual Enhancement Themes conference was planned to be the biggest event we have hosted.

For this conference we specifically aimed to attract a higher number of international delegates and contributors than we have had before and we succeeded. Over 500 delegates from 24 countries came together over three days to share experiences and practice and to collectively consider approaches to enhancing the student experience in the future.

The conference benefitted from many informative parallel sessions and we are pleased to include in this publication over 100 of the papers presented. As well as these, we had several stimulating workshops and posters at the conference and you will find a list of them in the publication. Authors, workshop leaders and poster presenters came from many different countries and a wide range of disciplines which enhanced the conference experience and its international outlook.

This large book of conference proceedings represents a wealth of shared work from across the globe. Given its size, it is only available online. To assist you in navigating the many papers presented, they are set out by conference track, as outlined in the table of contents. The papers have been published as submitted to us. The conference organisers would like to thank all who contributed papers, workshops and posters to the conference, they made for an exciting and interesting programme. We would also like to thank colleagues from across the Scottish higher education sector who peer reviewed all submitted proposals, and our keynote speakers whose presentations can be found on our website.

Finally, we would like to thank all our delegates who took the time to attend and take part in the conference, making it such an enjoyable, worthwhile and successful event. The 11th Enhancement Themes conference will be held on Thursday 12 June 2014. Our next international Enhancement Themes conference will be held on Tuesday 9 to Thursday 11 June 2015. We look forward to welcoming many of you there.
Conference papers

Achieving Curriculum Change

Reflections on work and learning and flexible curriculum

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Abstract

In this paper we reflect on the curriculum implications of some recent initiatives undertaken by The Open University in Scotland (OUiS). The University has traditionally delivered a flexible curriculum aimed at a part-time student population who are predominantly in work. More recently there has been a development of work-based learning (WBL) qualifications across a range of different discipline areas. We consider examples of workplace learning initiatives that have made use of both more traditional curriculum and curriculum designed specifically as WBL. We also consider examples of the impact of the growth of the curriculum through the development of non-accredited Open Educational Resources. In reflecting on some representative examples we look at how a Higher Education (HE) curriculum, whether conventional or work-based, can intersect and interact with work experience. In the course of this we share a “rich picture” developed to help us conceptualise work and learning.

Introduction

Developed economies face demographic challenges. The workforce is ageing; the majority of people who will be in work in 2020 (70%) have already left education (Leitch 2006). The skills required within the economy are changing, and the recession continues and as older workers remain in the labour market for economic reasons (and young unemployment increases) (Goodwin and O’Connor 2012), so the role of Higher Education changes. Following Leitch, HE providers have been encouraged to engage much more clearly with economic productivity. Despite a relatively high investment in the production of skills in Scotland labour productivity lags behind other developed economies (Scottish Government 2007). Within this policy focus there is recognition that economic productivity is not simply a supply issue, but also a demand issue, and that employers may be under-utilising the skills present within the workforce. The move from simply supplying graduates, to engaging more directly with employees and employers, in particular about how to use existing and newly developed skills, what might be called ‘workforce development’, lies at the centre of the OU in Scotland’s engagement with work and learning.

The OUIS has a distinctive role in the Scottish sector as the largest provider of part-time HE. The curriculum is flexible, modular and credit based. Nearly three-quarters of the 16,000 students are in work and the majority say that they are studying either to improve their skills, to progress in their career or to make a change of career direction (Cannell and Caddell, 2012). The OUIS is part of a much larger institution, the UK Open University which supports over 200,000 students across the four nations of the UK and internationally. The OU’s pedagogic model, ‘Supported Open Learning’, allows students to study high quality, interactive learning materials while supported by a personal tutor who provides academic support and feedback on assessment. The curriculum is developed centrally by teams of academics and learning technologists on a Fordist model that expects and affords large-scale delivery, and provides a consistent student experience irrespective of the student’s location. Although online forums and optional face-to-face tutorials provide opportunities for
interaction with other students the model is essentially one of individual support. Underpinning learning design and pedagogy across the curriculum is an assumption that adult learners bring knowledge and skills to their studies that should be valued and respected.

The last decade has seen two important curriculum developments; firstly, the development or work-based modules and qualifications and secondly a huge growth in the development of non-accredited Open Educational Resources (OERs). Each of these developments has impacted on, and helped to shape, some of our practice and our understanding of the relationship between work and learning.

WBL curriculum in the OU conforms with our general Supported Open Learning model but can be distinguished in the way it requires students to be able to actively engage in, and reflect on, particular kinds of work-based experience. The workplace is not just part of the individual's lived experience, but part of the study environment. Critically then it might be expected that WBL students on a given module share common experiences. The growth of explicitly WBL curriculum in the OU is rooted in two related phenomena. The first chronologically is a response to regulation and the requirements of professional bodies and was initially located primarily, but not exclusively, in the Health and Social Care sectors. The second was prompted by an initiative of the then Department for Education and Employment (DfEE) in 2000, which called for the development of Foundation Degrees (FDs) in England, Wales and Northern Ireland. The aims of this new qualification were to provide graduates with the skills needed to address shortages in particular sectors and to contribute to widening participation and lifelong learning by encouraging participation by learners who might not previously have considered studying for a higher-level qualification. The design principles for these new qualifications are intended to ensure that they are work-based qualifications. In the OU’s case these two hundred and forty credit point degrees must include 50% of the credit achieved through work-based modules. The Open University now offers the Foundation degree (FD) in a range of subject areas. In Scotland the OU badges these work-based qualifications as Diplomas in Higher Education (Dip HE). There are some parallels between the role of FDs and Scottish Higher National Awards and also some significant differences (Reeve et al, 2007). There are also variations between institutions in the way that WBL in FDs is construed.

The other development that informs thinking in this paper is the rapid growth of OERs, which began in 2001 when the Massachusetts Institute of Technology launched OpenCourseWare. OERs are defined by the OECD (2007: 10) as:

‘… digitised materials offered freely and openly for educators, students and self-learners to use and reuse for teaching, learning and research’

The OU’s OER platform OpenLearn was launched in 2006 with the development supported by the Hewlett Foundation. The ready availability of free, easily accessible learning resources adds a new dimension to the curriculum and opens up possibilities for redefining relationships between universities, learners and, in the context of this paper, learning and work.

In §2 we look at three case studies, which illustrate different aspects of our experience in developing approaches to work and learning. Then in §3 we draw this, and other, experience together in a suggested model to conceptualise work and learning. Finally in §4 we draw some tentative conclusions and consider what the implications are for curriculum development in the next decade.

Case studies

1 http://www.hewlett.org/programs/education-program/open-educational-resources/
2.1 Developing the use of better skills in the care sector

Our first case study is based on an initiative supported by the Scottish Funding Council (SFC) and linked to the Scottish Government’s interest in skills utilisation (Scottish Government, 2007). Supervisors in care settings who have responsibilities to manage staff are required by the Scottish Social Services Council to gain a professional qualification (usually SVQ level 3) and a supervisory or management qualification that provides a minimum of 15 credits at SVQ level 7 or above. Typically the care workers who require this accreditation have little post school education and no HE experience. The project team made the decision to make use of an existing Management module (B121, 30 credits at SCQF\(^2\) level 7), written with an explicit WBL focus, with groups of care workers in both public and private sector workplaces. Goldman (2012) in the final report to the SFC explains that the project approach

‘... seeks to better motivate the learners through developing a supportive workplace learning culture including a shared understanding of the contribution made by learner and organisation, the benefits of the learning to the workplace and finally through the development of peer support. The pedagogical model has reflective practice at its heart which we suggest has further encouraged motivation and consideration of skill use.’

Findlay and Warhurst (2012), in an overview of the Skills Utilisation Projects, note also that: ‘... in conceptual terms this project […] focused on the use of better skills rather than the better use of skills.’

In the context of this paper it is important to note that B121 was part of existing WBL curriculum and that no modifications were made to the mainstream OU delivery model. However, it was possible to assign personal tutors with a health and social care background and, through several presentations of the module, contextual materials were produced to enhance the mainstream materials that any student in the UK receives. The project was a success with excellent outcomes for students from 12 cohorts across five different workplaces. Evaluation reports (Payne 2011, Goldman 2012) highlight a number of important factors that contributed to rates of completion and attainment that are significantly higher than the norm for the module. Critically, while the module was not in any way bespoke, the context of a workplace group and the relationship between tutors, students and line managers that was developed in the project as an enhancement to the mainstream OU Supported Open Learning model meant that there was a powerful sense of ‘bottom up’ contextualisation for the specific circumstances of the Scottish care sector and for each workplace. One of the module tutors, quoted in Goldman (2012), remarks that

‘Before they started each assignment we would discuss how it was related to their role that they presently carry out, this helped them apply the theory to practice.’

In the SFC commissioned evaluation of all the skills utilisation projects, Payne (2011) comments that:

‘The strength of this project has been in the way it has sought to engage line managers in discussion around how students’ leaning on the B121 can be put to effective use within their everyday working life. The project started with a quite traditional focus on course delivery, but has developed over time and has influenced thinking within parts of the OU about how courses targeted at the workplace can be best delivered.’

Thus there was development at the level of the cohort and the workplace but also evidence that this then fed back into future curriculum development.

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2 Scottish Credit and Qualifications Framework
'There is evidence that some project teams, such as the OU social care project, have developed their understanding over time, and that this has now begun to stimulate discussions within the OU in terms of how it might deliver work-based learning programmes in the future.' (Payne, 2011)

Goldman in the final report reflects that:

'... workplace delivery of the tuition and support has kept a strong focus on the application of learning to the workplace. The use of reflective practice throughout the learning has enabled students to better understand the relevance of the learning to their practice as supervisors. Furthermore, the pedagogy has encouraged the development of a workplace peer support process including mentoring through line managers. This has been important to getting application of the learning in the workplace.'

2.2 A partnership approach to higher education in engineering workplaces

This case study shares with our previous example its genesis in the SFC's skills utilisation projects. It is based on a tripartite relationship between a union, a major engineering employer and the OU. Since its inception the union has been the primary driver in the partnership - a model that is more common in Scandinavia and elsewhere than in the UK. The students are shop floor workers with high levels of practical skills acquired through work, but with HE experience usually restricted to, at most, some SCQF level 7 credit achieved as part of an apprenticeship. In the past, with a small number of individual exceptions, opportunities to study at degree level have not normally been available to these workers; and where it has happened it has typically been on a day release rather than workplace model.

Since the inception of the project successive cohorts of workers have embarked on a pathway to a BEng honours degree. Whereas in our first case study the module itself was designed on WBL principles the BEng is not a work-based qualification - although it should be noted students must 'bookend' their study with modules that provide the opportunity for reflection on the development of professional practice. In other respects, however, there are strong similarities. Each module is studied on the mainstream OU model. For some modules it's possible for tutorials to be held in the workplace - however, complex shift patterns mean that not all students can access this optional support. Like the care sector example rates of completion, attainment and progression are very high. Evaluation studies suggest that there are strong parallels between the two examples although the key factors are developed in different ways. There is evidence of strong interactions between practice-based knowledge and the academic knowledge gained through the BEng. Through reflection on experience part of what HE does is to give participants the confidence to articulate and express their views on practice and this then feeds back into the work process. The role of the union is critical. Prior to the development of the degree programme the Union Learning Representatives (ULRs) in the workplace had developed a collective culture of engagement with education through less formal courses at lower levels of the SCQF. This activity, which continues, opens up possibilities, develops confidence and motivation and builds a culture of collective endeavour. The ULRs play a critical role in enhancing the mainstream OU support model and sit outside the normal employee/employer or learner/provider relationships. Along with students who have already embarked on the degree pathway the ULRs play a critical role in encouraging and clarifying commitments for new students. This additional relationship provides a safety net for participants. They note in particular the role that ULRs play when they have some sort of problem, for example issues around funding, or pastoral support relating to the balance of work and study. One of the most important insights that has emerged from this evaluation is that for these high achieving students workplace study in a collective context with peer support is the norm. For most of them all their
experience of learning has been **in, through or at work**. Again for most of them this is their only experience of HE. None of this is surprising but it requires the university to rethink its assumptions about the way in which students relate to the curriculum in this kind of partnership.

### 2.3 Collective learning at work - a role for OERs?

The OUJS signed a formal memorandum of understanding with the Scottish Trades Union Congress (STUC) in 2007 and since that time has worked with Scottish Union Learning (SUL) to develop effective and sustainable approaches to HE study in the workplace. Much of this activity has involved the use of accredited modules, in particular short, discipline based access modules designed as a first step to further engagement with HE. In these cases the model is typically like that explained in §§2.1 and 2.2. Evidence from evaluation across a range of workplaces and modules suggests that where frameworks that support peer support are established outcomes for students are very positive. In the rest of this section, however, we would like to discuss a complementary approach, which utilises the rich resources of OERs.

The OU and other HEIs have invested increasing amounts of resource and intellectual capital in the development of free, non-accredited online resources. Arguably sustainable business models for this activity, and an understanding of who engages, (a widening access issue) and how learners engage (effective learning) is less developed. In popular debate information or online content is often conflated with learning and this can in practice act as a barrier to engagement with and utilisation of these resources. Since 2011, in partnership with SUL and individual unions we have piloted the use of OERs in workplace settings. This approach builds on the workplace learning culture engendered by ULRs and the potential for peer support inherent in cohorts of learners who share a common workplace identity. The university responds to requests from ULRs and delivers a limited amount of face-to-face tuition in the workplace. Typically the face-to-face activity is based on already existing online resources. The tutor role is to listen to the workplace need, select appropriately from the available resources, support the group to become self-sustaining and signpost opportunities to move, if appropriate, from an informal and non-accredited mode of study to more formal engagement with HE.

**Conceptualising work and learning**

Nixon et al (2006) in a Higher Education Academy review of work-based learning note that:

‘Everyone has a view on what work-based learning means and they use a wide range of terms interchangeably (e.g. work-place learning, work-related learning, vocational learning).’

The case studies considered in §2 are selected from a larger set of examples of developing practice in work-based learning which, we have been engaged with as part of a small team at the OUJS. The team meets regularly to review progress and reflect on what has been learned. The quote from Nixon et al (2006) defines an issue we grapple with on a regular basis. The initiatives we have undertaken have all engaged with groups in the workplace. For some participants, studying OU material in the workplace follows prior exposure to HE study at college or university; for most it is a first experience. Examples range from the highly contextual and vocationally relevant such as 2.1 and 2.2, through to examples of study that are less directly related to the workplace and at the other extreme study, which on the face of it is not relevant to the everyday work roles of the participants. Only some of our practice involves modules that are explicitly badged as WBL and yet evaluation across the range of initiatives suggest that collective study in the workplace supports both the individual aspirations of group members but also has significant impact on skills and motivation in the workplace. Our examples lie in the terrain of work-based learning but don't fit neatly into the
definitions that are in use. To clarify our ideas we have drawn on the "rich pictures" approach to visualising complex problems. "Rich pictures" are a way of thinking about and visualising difficult or complex issues. They are often used at an early stage to record personal or group understanding and interpretation of a particular issue of set of issues (Bell and Morse 2012). Users are encouraged to use pictorial representations rather than text. The approach is useful in group work as the images can reflect and contain ambiguities and lead to useful discussion. In truth people often quickly move from the pictorial to the textual, in particular if it relates to abstract ideas. In a workshop setting the OUS WBL team created a number of visualisations relating to different aspects of the topic, for example internal OU systems, and after these iterations decided to create a representation of work and learning - see Figure 1.

In the course of debating these issues and reflecting on the results of our practice we have become more comfortable in using the phrase 'work and learning' rather than work-based learning. All our examples involve partnership. So students have dual identities as both member of a workplace group and as student. At the heart of each initiative there is a set of shared work and study experience and opportunities to explore this through peer support. At the same time the study materials and the mainstream pedagogy is derived from a curriculum that is delivered in the main to individually supported students. Thinking of work and learning has encouraged us to reflect on the elements of our practice that seem to be important in the context of broader policy debates. Figure 1 is a tentative attempt to capture the important factors involved and the relationships between them. In the model the learner is placed at the centre, surrounded by a "positive and supportive work place culture", the components of are

Life Long Learning, an understanding and acceptance that learning takes place throughout ones life in a range of different ways and a range of different locations; An understanding and a commitment to seeing learning in the workplace as a partnership with shared commitments and shared benefits
An ability to develop new and use existing skills effectively within the workplace to support the employers and employees aspirations;
An understanding of the economic benefits that accrue to employers, employees and Scottish society from the investment in developing and supporting a culture in the workplace that supports WBL;
A sound pedagogical base that understands, reflects and articulates the benefits of learning in the workplace, in particular the support of peers and the ability to develop and articulate knowledge and skills within the workplace;
Content that is relevant to employers and the needs

Much of what the diagram captures is already part of the debate around work-based learning. However, we would want to emphasise that partnership is part of the structure of support, part of the jigsaw, rather than an institutional relationship between employer and university. Peer support is critical and in this respect understanding the boundaries between the academy and the workplace and allow students to lead collectively and individually seems to be very important.
Conclusion

In this final section we return to curriculum issues. In the introduction we noted that from the perspective of society and economy there is a critical need, over the next decade and beyond, for individuals in the workforce to develop new skills and make better use of skills that they have. At the same time there are huge changes in the availability of information and the ability of individuals to access information in new and personal ways. Universities are certainly no longer the privileged gatekeepers to technical knowledge. In these new circumstances this raises questions about what we mean by flexible curriculum. Arguably this discussion needs to go beyond dichotomies of full and part-time and accredited or non-accredited provision. OERs and Massive Open Online Courses both raise questions of who the learners are, how they engage with learning and the nature of the learning. In this paper we have reflected on our experience of working in partnership with unions and employers to promote HE learning in the workplace. We would argue that this experience is distinctive in two respects. Firstly, because in reviewing WBL across the HE sector we have noted a great deal of innovative and valuable practice, the dominant model is bespoke and it's not clear that its practicable to grow the scale of these approaches to allow Universities to meet socio-economic demands. Indeed at present in terms of money spent, Universities have only a small fraction of the market for education and training in the workplace. In house and private provision dominates and there is considerable evidence that providers are seeking to expand in this area. In contrast to bespoke approaches the partnership approach that we have outlined seeks to maximise the benefits of mainstream curriculum. Our evidence suggests appropriate adult learning pedagogy, space for reflection and collectively organised peer support helps those in the workplace to contextualise mainstream curriculum, and what emerges is user-generated understanding of learning and the workplace. Secondly, we have argued that potential barriers to accessing rich resources in
online formats can be overcome with appropriate support and guidance. We have some limited experience of how working in partnership enables not simply better use of existing OERs but also the possibility of developing rich new resources based on shared knowledge and experience. Again this is a pedagogic issue and we feel there is real scope for further development in theoretical understanding of how social context and studying in socially connected environments can support successful learning. New developments in social media and the ubiquity of communication technology could potentially support such new pedagogy. There is a real need for further research in what we would call Open Educational Practice.

References

Edinburgh: Scottish Funding Council and Skills Development Scotland.
Lane A (2011) "Best Practice Report on Widening Participation in Higher Education Study through Open Educational Resources", European Association of Distance Teaching Universities, Heerlen, Netherlands.
http://www.heacademy.ac.uk/assets/documents/research/wbl_illuminating.pdf
last accessed 1st May 2013

Challenges of integrating service user and carer experiences into the Health and Social Care curriculum: reflections on a podcasting initiative at the Open University in Scotland

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Abstract

The involvement of people who use social work services and carers in the design and delivery of professional programmes and qualifications has been identified as both good practice and a professional requirement for a number of years (COSLA et al, 2003). A changing funding climate raises potential difficulties for the sustainability of this practice. This paper will explore an Open University project which produced a series of podcasts to incorporate service user and carer experiences into the wider Health and Social Care curriculum delivery. This project is then used as a springboard to consider wider debates on the purpose, and learning benefits, of embedding direct service user and carer experiences in the curriculum.

Introduction

The value of involving service users and carers in the education and training of service workers, once a radical notion, is now taken for granted in principle if not always in practice. In particular, providers of social work degree programmes have been required since 2003 to ensure that policies and procedures for the selection and assessment of students include “effective and appropriate ways of involving [and] meeting the requirements of key stakeholders”, who are defined as including “people who use services [and] carers” (COSLA et al, 2003). Similar requirements for user and carer involvement were introduced in England, Wales and Northern Ireland by their respective Care Councils. This requirement is now extending to a wider range of professional programmes including those for nurses and child care practitioners.

From 2008 to 2012, the Scottish Social Services Council (SSSC) provided a modest grant to social work degree programmes to facilitate the involvement of service users and carers. The cessation of the grant in 2013 challenged the sustainability of practices that were developed in a more benign funding climate; it challenged the Social Work programmes to find more cost-effective approaches to continuing and indeed developing the participation of service users and carers in the Social Work degree.

At the Open University in Scotland a small group of service users and carers and Health and Social Care (HSC) staff have been working together since 2005 to develop the practice of involving service users across the HSC curriculum. This is a cross faculty initiative, rather than one which is exclusively focused on social work education. Despite the removal of SSSC funding the OU is committed to continuing to enhance student learning by embedding the voices of service users and carers in the HSC professional programmes. To achieve this the OU is developing a series of podcasts of service users and carers talking about their experiences of particular areas of health and social care services, to be available on-line to OU students and perhaps eventually, to a much wider audience of users of open educational resources.

The podcasts aim to enhance student's learning by providing access to the voices of people who use health and social care services and carers, talking about their experiences of health and social care services. The project addresses a perceived gap in social work teaching, by
providing new resources that help students to prepare for the specific practice learning placements they will undertake to enhance their learning.

This paper will consider the OU project in relation to discussions on the broader learning implications of the inclusion of service-user and carer experience in the curriculum. It will include reflection on what this means for curriculum development and student learning, particularly through creating opportunities for authentic and critical enquiry based learning (for definition of these terms see Lee et al 2007).

**Literature review**

An extensive literature of journal articles and published texts on service user involvement in professional education is too large to detail here. A selection of studies specific to service user and carer involvement in the social work education context include; Beresford (1994; 2000; 2001a; 2001b; 2006; 2008; 2012); Harris (2003); Levin (2004); Molyneux & Irvine (2004) ; Ager et al (2005); Taylor et al. (2006); McPhail (2008); Warren (2008); Sadd (2011) Wallcraft, et al. (2012), and Smith et al (2011) who consider the lingering barriers to involvement of the most marginalized groups.

The Social Care Institute for Excellence (SCIE) has produced a series of Guides and Position papers on service user involvement in both social care and social work education around themes of inclusion, networking and involvement of under-represented groups, which provide a backdrop to the current study. Glasby and Beresford (2006) present a case that the generation of social work knowledge which does not include the views of people who use and those who provide social work services is likely to produce a false and unsafe view of the world. However a study in England by Branfield (2009) found that despite being a requirement of the new social work degree, involvement of service users and carers remains piecemeal and patchy. Obstacles included inadequate training for service users, negative attitudes of students and staff, and practical barriers such as poor transport and slow reimbursement of expenses.

Other studies relevant to the OU podcast project focus on the use of podcasts in distance education. Lee et al (2011) for example, found that there were a number of benefits stemming from use of podcasts and other digital learning resources such as: increasing learner motivation and engagement; facilitating and enhancing learning outcomes and establishing a sense of a learning community. In contrast to earlier uses of audio-visual material in distance education, podcasts were preferred because they are file-based downloads and supported mobile or portable learning.

Another area of research studies is focused on the involvement of service users and carer in professional education via the medium of podcasts or similar digital materials. Fox et al (2011) developed an interdisciplinary action learning set to develop an e- learning resource to enhance students to work more effectively with service users and carers. Service users were involved in the development of this resource. Within this there are case scenarios and feedback from learners. They comment that the development work was curtailed by lack of time and resource, which appears to be a familiar experience.

**Project background**

At the Open University in Scotland, service users and carers have worked with members of the Health and Social Care faculty since 2005 to contribute to the development and delivery of the curriculum. The contributions of service users and carers have included participation in agency approval and student selection; quality assurance of student assessment and practice learning; development of curriculum materials; management of the social work programme; and writing and/or critiquing publications to document and develop practice.
A Service Users and Carers (SUC) management group of users, carers and staff has given guidance and continuity of oversight as well as providing a venue for developing new initiatives. Academic assumptions and practices have been challenged and changed in the course of creating opportunities for meaningful engagement (and trying to avoid the traps of token participation) by service users and carers.

Development of the project proposal

The loss of grant funding encouraged the SUC to look for new approaches to maintaining and enhancing the commitment to service user and carer involvement. The SSSC's rationale for the funding cut to social work programmes included the notion that other health and social care disciplines require to involve service users and carers in their programmes; so social work should not receive financial support that could not be offered to the other disciplines. Within the Open University in Scotland (OUiS), colleagues in the Health and Social Care (HSC) faculty were already engaging with service users and carers, and the latter were themselves advocating for their voices to be heard more consistently across all the health and social care disciplines. Meantime, feedback on the social work programme suggested that it might be desirable to develop additional resources to help students better prepare for their practice learning placements.

The nature of distance learning programmes means that it is difficult if not impossible to involve service users and carers in direct work with students on a consistent and equitable basis. Users and carers do take part in face to face tutorials in the final year social work practice learning module; but the experience of different tutor groups across the nation is likely to vary considerably, depending on who is available locally to work with them, and on the particular circumstances of their tutorials.

In this context, the deliberations of the OUiS service users and carers group resulted in a proposal to develop a series of podcasts, in which users and carers talk about their experiences of particular health and social care services, to be available on-line to OU students (and perhaps eventually to a wider audience of users of open educational resources). The intention was to produce learning resources that offer students relatively direct and unmediated access to the experience and opinions of people who have used the services in which the students will undertake their practical professional training. Relevant service areas in health and social care include: Mental Health, Learning Disability, Disability, Adult Care, Criminal Justice Social Work, Social Work with Children, Young People and Families services. A further aim was to involve service users and carers whose voices are seldom heard in professional education, such as black and minority ethnic service users and carers, and involuntary service users such as people involved with criminal justice social work services and people who misuse alcohol and substances (Smith 2001).

Process and progress to date

A bid was submitted to an OU Small Project Fund in July 2012, and initial funding of £2000 was confirmed in October 2012. A meeting of the OUiS SUC group in November 2012 agreed to proceed with the project. The SUC group constituted itself as the project management group, and nominated one of its members as project manager. Neither the project manager nor the members of the management group had any previous experience of making audio recordings or creating podcasts.

5.1 Laying the foundations

Before anyone could be approached for an interview, it was necessary to establish project procedures and documentation and to acquire recording equipment. It took four months from the decision to proceed in November 2012 until these foundations were established by late
March 2013. The first step was to draft an action plan and to seek advice best practice and legal requirements in relation to data protection, informed consent and copyright. The management group held three telephone conferences to discuss and revise project documentation. Interview questions were pilot tested, the project manager and a carer member of the group participated in a training day on interviewing and audio recording, and the loan of a digital recorder was obtained.

5.2 Contribution of service users and carers to consideration of content, confidentiality and copyright

The views of the service user and carer members of the project management group significantly shaped the development of the project. As the project manager began to unpack the project proposal and to draft an action plan, the service user and professional members of the group brought different assumptions and perspectives to discussions about recruitment of interviewees, content and editing of interviews, copyright and control of the final product.

The management group determined that a "partnership approach" should be the primary principle guiding the implementation of the project, and our relationships with interviewees in particular. In order for the project to make respectful relationships with participants, and to represent their views meaningfully, it must offer people real choice about involvement, based on informed consent, and it must be open to feedback about participants' experience of the project.

Group members began to articulate an understanding of the project within a wider context of social policy and principles, for instance as an effort at co-production: "...a relationship between service provider and service user that draws on the knowledge, ability and resources of both to develop solutions to issues ... changing the balance of power from the professional towards the service user" (Scottish Community Development Centre). The commitment to a partnership approach was described by a service user member of management group as evidence of "understanding of my basic human rights and needs". Academic vocabulary was challenged where it might be obscure or obfuscating. A draft copyright agreement based on a standard Open University document that asked interviewees to "waive all moral rights... (including, but without limitation) any of my rights under Sections 77 and 80 of the Copyright, Designs and Patents Act 1988, or similar laws of jurisdiction" was thought to be unduly onerous as well as obscure in its implications. So at this preliminary stage, the project action plan, information sheets and consent forms were revised and reviewed several times until they were acceptable to all members of the management group.

The need to edit recordings - to modify an interviewee's account to fit a pre-determined podcast format - was questioned. The transcription of interviews was advocated, so that interviewees would be able to identify what might be missing from the edited audio, and then decide whether they would approve the publication of the edited version of the interview. All members of the management group were venturing into unknown territory in this project, and as the commitment to partnership with participants was explored, the project began to develop an "action research" quality. Reflections offered by members of the management group during this period indicate both the challenge and stimulation they experienced:

"... completely outside my comfort zone... have developed a whole new set of skills"
"An interesting and thought provoking journey - I have got a lot out of it"
"... challenges of co-production - learning as we go along"
"How long it all takes!"

5.3 Pilot interviews
At the time of writing, three interviews have been recorded with members of the Service Users and Carers group. They all challenge one of the core aims and assumptions of the project, i.e. that podcasts should be short and focused. Participants have been informed that the interview is an opportunity to talk about their experience of a specific service, and to identify what a student, as a prospective service provider, should know in order to be helpful. Although they seem to understand the purpose of the interview, people want - or perhaps need - to tell their story in their own way and in their own time. Recordings are 40 to 60 minutes long.

Having asked the initial question to set the ball rolling, the interviewer has felt that it would be disrespectful and probably counter-productive to be over-directive about what should be said and how. The experiences the interviewees describe are very personal, often very challenging and emotionally charged; they may be in the past or they may be very recent. So far at least, the stories told do not fit into simple, easily-labelled boxes. They do, however, have the potential to communicate the pain, confusion and distress that have entered and sometimes taken up residence in the lives of the speakers; while their darkness throws into vivid relief people's resilience and their appreciation of meaningful help when it is given.

5.4 Next steps

To complete the first stage of the project, it is intended to undertake three more interviews; to prepare the interviews for publication online; and to offer a small number of students access to the podcasts for initial user testing and feedback.

With regard to publishing the interviews online, the intention is to present the complete interview both as a single recording, and also broken into a set of shorter recordings, annotated and labelled to inform the potential listener of the topics included in each individual item. The recordings will be packaged with a context-setting introduction and questions for consideration when listening.

Reflections

The impacts on the project manager of interviewing and recording carers and service users may indicate the potential impacts on the intended audience of listening to the podcasts. Giving people time to speak about their lives encourages awareness of the burdens of living with long-term illness or disability, and the burdens of caring for a relative with such illness or disability. There is no doubt that everyday life is hard work, physically and emotionally. For some, there may be little or no prospect of improvement or relief, so it is painful to hear about the callousness of professionals and services when they forget or ignore the reality of people's lives. Being reminded of our common humanity may lead to the understanding that "there but for the grace of God go me."

6.1 Reflections on the process

As the work has proceeded, management group members have had to recognise and work with tensions between project aims ("short, focused podcasts"), respect for participants ("giving people time to tell their stories") and the limitations of resources and expertise currently available to us. There has been a willingness to learn together, valuing the distinctive contributions of the professionals and the experts-by-experience. The challenge of managing differences in status and experience, in order to share power and decision making in the management group, has mirrored a firm intention to respect and give meaningful choice to project participants.

An interviewee who is also a member of the management group tells of a case conference on her newly-disabled adult son, when she refused to allow the meeting to start until he was
brought to sit at the table. Our work on the podcast project has confirmed for us that "...partnership is about managing power; it requires constant attention and is always 'work in progress'." (Taylor et al, 2006, p. xiv)

6.2 Reflections on the implications

This project stemmed from the need for a more cost effective means to deliver service user and carer perspectives on professional education programmes, without losing the authenticity of the input from service users and carers. The project addresses concerns of service users and carers having to repeat their personal experience year after year to new cohorts of students on professional programmes of study. An additional feature of this project is that management members are keen to avoid reliance of individual case study experiences and to include more collective voices of service user or carers.

Involvement of service user and carers' experiences in the curriculum raises pedagogical questions about the place of authentic personal and collective experience in the HSC curriculum. Should it always be tied to learning outcomes, as Fox et al (2011) and others state, or does this approach open the way for a more direct and unmediated learning? How does this project relate to the issues and discussions regarding the basis of open learning, for example as supporting self-determination and independence of learners with guided learning? Key features of an open learning approach are; informal learning, student self-direction, authentic learning using real life situations, access to rich resources versus approaches using written materials, and acknowledgement of what the learner brings to the learning situation (after Dewey 1997). How much guidance and support do students need to structure their learning? What is the role of individual and collective service user and carer narratives in the production of health and social care knowledge? The next phase of the project, evaluating the podcasts as learning resources, should enable some fruitful enquiry into the possibility of differential learning from the podcasts as students move through sequential stages of the social work degree.

The greatest learning so far from this project is that the co-production of podcasts with service users challenges assumptions about the production and the creation of a rich and valuable source of learning and knowledge; in particular, that it is indeed costly in time and resources if it is to be carried out as a respectful co-learning activity.

Conclusion

At this relatively early stage in its implementation, the project has already shown that it can engage service users and carers in both managing the process and in providing content. There are clear indications that it can involve and challenge academics and professionals. We look forward to presenting and testing the podcasts with students. If this pilot stage proves successful, it will both strengthen the voices of people who are seldom heard and will give students a deeper understanding of their professional responsibilities.

References

Sadd, J. (2011) ‘We are more than our story: service user and carer participation in social work education’, London: SCIE.
Perception of Competency in School Psychology Interns

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ABSTRACT: This study examined the self-perceived competencies of 96 culminating school psychology candidates in relationship to the National Association of School Psychologists (NASP) standards. The NASP standards formed the base of the inquiry and daily, routine activities of school psychologists were identified as examples of each standard. The findings of 4-point Likert-type scale survey indicate an inconsistent pattern of perceived competencies. The means ranged from 2.29 to 3.30 with the high representing more traditional skills and the low representing non-traditional skills. The findings of the study will be used to examine the effectiveness of the curriculum and course signature activities.

INTRODUCTION

There is no greater characteristic necessary for job acquisition and maintenance than competency. Every profession delineates the ability to perform a job well, as the primary essential attribute. Qualified, competent staff is valued and demanded by health professions, corporations, and educational institutions in order to assure a level of performance that will guarantee the highest degree of professionalism and performance. Competency is different for each occupation; however, the common premise is the ability to perform a procedure and be measured against a standard. School psychology, being a blend of psychology and education, is highly demanding and requires quality performance in both domains.

The competency of school psychologists is governed by several organizations; some are professional while others regulate licenses and credentials. Professional organizations include the International Association of School Psychology (IPSA), National Association of School Psychologists (NASP), California Association of School Psychologists (CASP), and the American Psychological Association (APA). In the United States, each state establishes a procedure for licensing or credentialing (some states provide both). In California, the California Commission on Teacher Credentialing (CCTC) is the regulatory body for accreditation of school psychologists. Each of these organizations and associations has established ethics and criteria for professional performance. Competencies that are common to the organizations include the ability to: 1) diagnose and assess psychological disorders, 2) counsel clients, 3) consult with stakeholders and other professionals, and 4) identify program treatment (behavior and/or academic). Ethically, the shared traits include 1) performance within areas of expertise, 2) client's well being is always taken into consideration, 3) do no harm within the professional experience.

Standards to determine the ability and quality of work performed are found in all professions: business, health/medical fields, and education. The level of quality accepted is specific, identifiable, and measurable. The attainment of competency is usually determined through observation, rating, and/or peer-review. A person may question the determination of competency by another person. Self-perception of competency, however, is subjective and based upon an individual's own feelings, opinions, and impressions. The perception can be measured and/or rated, but it continues to be subjective rather than based upon facts. The purpose of this paper is to identify the perception held by culminating school psychologists regarding their competency in domains identified by the NASP as required to adequately perform their job.

REVIEW OF LITERATURE

General
The establishment of competency in the health and medical fields is prominent in the literature. The medical profession establishes and continues to examine, the undergraduate and graduate training of medical students and interns, in the United States and in other countries (Leung et al, 2002). On-going competency is examined by the American Medical Association (AMA) through professional activities and recommended assessments through licensing (Carraccio et al, 2004). The field of nursing reports a highly motivated movement for competency training. Mozingo et al (1995) discuss the desire by nursing candidates to participate in "more practice of technical skills". At this time, technology and on-line training has become an issue of discussion in the nursing profession (Reneau, 2012). Competency is a factor in other health professions. The areas of physical therapy, occupational therapy, public health and pharmacy all continue to develop core competencies in their curriculum, improve training, and provide on-going examination of proficiency in their specific field of expertise (Maize et al, 2010).

The business community shows concerns about competency, as well as ethics. With the increase focus on technology, businesses are establishing competency levels in those areas. Competency issues are important in other countries as global technology is strengthened (Camuffo et al, 2004). The need for human resource management is seen in the literature. Initial training of personnel for this area and the establishment of standards and certification, is assuring businesses are becoming more competent in their hiring and training practices (Lievens et al, 2007). Ethics in business is a recurrent subject in the literature. The training and teaching of ethics has become a focus in Europe, Southern and Eastern Asia, as well as the United States (Rossouw, 2011). Sligo et al (1998) and Allmon et al (1997) reviewed perceptions of business ethics. There appears to be consistency in perceptions of decisions made in ethical practices, although business profit tends to hinder some ethical decisions.

Accountability has been a primary focus in education for over three decades. The correlation between good teaching methods and successful students is key to maintenance of a fully productive educational system. Competency-based curricula has been discussed in literature in almost every aspect and group, from preschool (McWayne, 2004) to university. Most literature centers on kindergarten to high school enrollees and identifies methods by which students are evaluated on a variety of subjects (Eckert, 2013). Teacher preparation and teacher quality are also a strong focus of interest (Futrerll, 2010). Ball and Forzani (2011) discuss the infrastructure of a meaningful university program from the standpoint of policy and recognize the need for a common core of principles that will be taught to all teacher candidates. The use of technology and on-line learning are examined for competency-based curriculum in their areas of learning (Ash, 2011). Competency in the area of employable skills is a concern for educators and employers (Poole and Zahn, 1993). In conclusion, Hackett (2001) evaluates competency and reflective practice. Diverse definitions of competency-based curriculums are identified as one of the problems with the consistency of the concept.

School Psychology and Competency
The competency of school psychologists is widely discussed in the literature; however, little is written about candidates' perceptions of their competencies. Rubin, et al (2007) reviewed the history of the competency movement which began in the 1970's. Current interest in competency began when the American Psychological Association (APA) revised their Code of Ethics (2002) and gave competency a section of its own, placing greater emphasis upon the concept. Accreditation and credentialing of psychologists by states and organizations followed as a next step. Competency became a specific behavior that can be measured and quantified for authorization. University programs stepped up and focused their programs on terminal degrees (doctoral programs) and educational models which emphasized the importance of knowledge and skills related to proficiency.
School psychology is a specialty with specific competencies and complexities (Tharinger et al, 2008). School psychologists practice in educational settings with clients from the age of birth (0) to maturity (21 yrs). The profession is bound by both Federal and State regulations governing education and the identification and instruction of handicapped persons. The practice is focused on the psychology of problem-solving and application of interventions with outcomes in the school setting (Tharinger et al, 2008). The NASP Standards for Graduate Preparation of School Psychologists, Standards for the Credentialing of School Psychologists, and Principles for Professional Ethics (2010) identify ten roles and competencies expected of school psychologists in their practice. Traditionally, the school psychologist's role has been that of assessor of students with learning and/or behavioral difficulties. The identification for state and federal assistance in school has been the focus of their professional duties (Fagan and Wise 2007). School Psychology: A Blueprint for Training and Practice III (NASP, 2006) identifies many roles of school psychologists other than test-giver, such as consultant to educators and administrators, collaborator, mental health professional, family consultant, program planner and researcher. Kratochwill and Bergan (1978) discuss the school psychologist as a behavioral consultant and identify the competencies and training required for that specific responsibility, while Cummings (2002) and Collins and Proctor (2009) see consulting as a major role for school psychologists. Working with culturally and linguistically different students is discussed by Lineman and Miller (2012).

University programs have moved from a course-driven curriculum to a competency-based model. This requires each institution to develop a set of courses with specific outcomes matching the desired competency. As the roles of school psychologists are broadened, the length and breadth of programs increase in size and intensity (Mowder, 1979). Each course must have its own set of standards to be met for satisfactory conclusion of the program and emphasis is placed upon a broad base of skills. The culmination of a candidate's program is the Practicum and Internship. The two practice-focused experiences total 1,650 clock hours and must be completed in a K-12 public school setting, as established by the NASP and California Committee Commission for Teacher Credentialing (CCTC). Tarquin and Truscott (2006) surveyed candidates regarding their perceptions of their practicum experiences and found there was little change in roles even though university programs had moved to a broader based curriculum. This paper emphasizes that the role of psychometrician continues to be the focus of the school psychologist's role even though universities have altered their curriculum. Catterall (1973) discusses the assessment of competency in the field and outlines activities and assessment in each identified area. Although this paper was written three decades ago, it follows the model of more current work delineated in the NASP Professional Standards (2010) and the Model for Compressive and Integrated School Psychological Services (2010). Competency is considered a prominent attribute in school psychology programs, training, and practice. The candidate's competency is evaluated, but whether or not they see themselves as competent (perception) was not found in the literature review.

**METHODOLOGY**

**Instrument**

The primarily instrument used in this study was the School Psychology Student Survey (SPSS) developed by the authors. The survey is used in a multidimensional longitudinal study. For this paper only one element of the survey will be discussed, i.e. school psychologist candidates’ perception of their skill competency. Other parts of the survey, not reported in this paper, reflect information about practicing school psychologists’ daily activities, the importance of the activity, the amount of time devoted to each activity and perception of roles (Smedley and Wheeler (2010)).
The survey asked the respondents to rate perceptions of their competency on ten activities that correspond to the NASP domains. The respondents rated their skill competency on a Likert scale of 1 to 4, with 1 “very high”, 2 “somewhat high”, 3 “somewhat low” and 4 “very low”. The selection of activities presented was based on the training identified by the NASP: Practices that Permeate All Aspects of Service Delivery (Data-Based Decision Making and Accountability, Consultation and Collaboration); Student- Level Services (Interventions and Instructional Support to Develop Academic Skills, Interventions and Mental Health Services to Develop Social and Life Skills); System-Level Services (School-Wide Practices to Promote Learning, Preventive and Responsive Services, Family-School Collaboration Services, Family-School Collaboration Services); and Foundations of School Psychological Service Delivery (Diversity in Development and Learning, Research and Program Evaluation, Legal, Ethical, and Professional Practice). Table 1 shows the ten activities which correspond to the domains.

**Table 1: Survey Questions from SPSS**

- Participate in assessment of individual students
- Provide consultation with teachers and staff regarding mental health issues
- Develop and implement academic interventions, including IEPs
- Develop and implement behavioral interventions
- Assist administrators in developing school policies and practices
- Provide and/or contribute to prevention or intervention programs
- Promote and provide collaboration with families and others in the community
- Participate in evaluation of site/district programs
- Participate in professional development activities
- Access, analyze, and utilize information sources from cutting-edge technology

____________________________________________

**Procedure**

The survey was completed in a course entitled "Internship Seminar" (PED 685) which is the culminating course coinciding with the later section of the candidates’ internship. Thirty minutes was allotted at the beginning of the last class session for completion of the survey. The instructions included the respondent’s anonymity and that the information gathered would be used by the Lead Faculty of the program for research. Participation was voluntary. The research was approved by the university institutional review board.

**Sample**

Characteristics of the sample are presented in Table 2. Of the 96 respondents, 75 responded to gender, identifying 87% as female. The profession has historically been male dominated up to about 30 years ago (Fagan and Wise, 2007). This change to a female-oriented profession may be due to economics and length of the program, both having an influence on the ability of a head-of-household to enter into a 3-year university program. The age of respondents ranged from 24-51 years of age. Seventh-three percent of the group was below the age of 36, with nearly half of the group below the age of 31. Seven percent of the group indicated their age as over 45 years. Responses indicate 70% of the candidates do not have a professional background. Of those stating a current occupation (other than full-time student), 56% held educational credentials (State issued) and 44% held licenses issued by the State Board of Behavioral Sciences. The latter included Marriage Family Therapist and Behavioral Therapist. The degrees not in these areas, ranged from sociology, liberal arts, criminal justice, political science, to accounting. The majority in the “Other” category related to some segment of social science.
Table 2: Demographic and Educational Characteristics (N=96)

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Percentage</th>
</tr>
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<tr>
<td>Age (years)</td>
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<tr>
<td>24-30</td>
<td>46</td>
</tr>
<tr>
<td>31-35</td>
<td>26</td>
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<tr>
<td>36-40</td>
<td>10</td>
</tr>
<tr>
<td>41-45</td>
<td>10</td>
</tr>
<tr>
<td>46-51</td>
<td>7</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
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<td>Male</td>
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</tr>
<tr>
<td>Female</td>
<td>87</td>
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<tr>
<td>Undergraduate Degree Education</td>
<td></td>
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<td>Education</td>
<td>6</td>
</tr>
<tr>
<td>Psychology</td>
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<tr>
<td>Other</td>
<td>42</td>
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<tr>
<td>License</td>
<td>44</td>
</tr>
<tr>
<td>None</td>
<td>70</td>
</tr>
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</table>

RESULTS

The first part of the data analysis evaluated data in global aspects. Ninety-six candidates responded to the questionnaire. Eleven surveys were returned with no data and 3 were not usable. Of the eighty-two respondents who completed the data, 9 gave partial responses in a range from 2-9 questions. There were potentially forty possible responses per survey, with a total potential of 820 responses. Of the possible responses, 814 were calculated.

Mean scores were computed for each of the 10 questions. The means ranged from 2.29-3.30. The total mean score was 2.82, the median was 2.89, and the mode was 2.87. "Very high" was chosen 22.2% of the time by the candidates; "somewhat high" was selected 44.2%, "somewhat low" was chosen 25.4%, and "very low" was marked 3.5% of the time. (Table 3)

Table 3: Mean Scores of Perception of Competence

<table>
<thead>
<tr>
<th>Item Number</th>
<th>Mean Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>3.30</td>
</tr>
<tr>
<td>2.</td>
<td>2.92</td>
</tr>
<tr>
<td>3.</td>
<td>3.11</td>
</tr>
<tr>
<td>4.</td>
<td>2.87</td>
</tr>
<tr>
<td>5.</td>
<td>2.29</td>
</tr>
<tr>
<td>6.</td>
<td>2.81</td>
</tr>
<tr>
<td>7.</td>
<td>2.91</td>
</tr>
<tr>
<td>8.</td>
<td>2.32</td>
</tr>
<tr>
<td>9.</td>
<td>2.87</td>
</tr>
<tr>
<td>10.</td>
<td>2.77</td>
</tr>
</tbody>
</table>
Frequencies in percentages were computed for each of the 10 questions in the SPSS. Item 1 asked candidates to rate their perception of competency in data-based assessment; an overwhelming number (99%) rated themselves as very competent or somewhat competent in this area. On item 2, which pertained to competency to provide consultation with teachers and staff on mental health issues, 53.6% rated themselves as somewhat high, a fairly even distribution was seen on very high (20.7%) and very low competency (21.9%). For the third item, 51.2% agreed they were somewhat high and 28% agreed they were very high. This item asked about the developing and implementing of academic interventions and Individual Educational Plans (IEP). The development of behavioral interventions was the topic of item 4 in which 52.4% of the respondents said they were somewhat high in competency, with 21.9% agreeing they had somewhat low competency. Item 5 pertained to assisting administrators in developing school policies and practices. Only 38.5% of the candidates agreed they were very competent or somewhat competent in this area. Almost 60% said they had very low competency (9.76%) or had somewhat low competency (48.7%) in this area. A somewhat similar split pattern was seen on item 6: provide and contribute to prevention or intervention programs within the educational system. On this item, the majority of the responses (48.7%) indicated somewhat high competency or very high competent (17.1%), with 34.2% feeling they were very low or somewhat low in competency in the area. Item 7 focused on collaboration between school and families. The majority of candidates agreed they were very competent (23.5%) or somewhat competent (48.8%) in this area. Almost 1 in 4 candidates, however, perceived themselves as having low or no competency (22.1%) in family-school collaboration. Item 9 related to participation in the development of professional activities, such as teacher in-service and trainings. This question was the most negative of all 10 items; 57.5% of the candidates stated they had low (44.3%) or very low competency (15.2%) in this domain. Only .09% of the respondents perceived themselves to be very competent and 31.6% said they were somewhat competent in giving teacher training in school psychology information. The last item related to the ability of use technology in professional work. Sixty percent of the candidates identified themselves as very confident (22.4%) or somewhat confident (37.5%), while 32% perceived themselves to have low or very low competency in this area.

DISCUSSION

A foundational premise of competency-based education is the assumption that skills, which are primary to a profession and necessary to effective performance of the required tasks, will be identified and taught in courses and evaluated through assessments and experiences in the internship period. When this process is completed a supposition is formed that candidates are proficient and confident in the areas identified in the curriculum as essential to retaining employment.

In this study, the dichotomy between competencies perceived as high and those that are perceived as low, flow along the lines of traditional vs. non-traditional skills. Traditional skills are those that school psychologists have practiced since the inception of the discipline: assessment of students for placement in special programs, consultation with teachers and parents regarding the student's academic and/or behavioral needs, and the reporting of data for records. Skills which have recently been promoted (non-traditional) include a greater emphasis on team problem-solving, development of programs beyond an individual student, affecting the general education population as a whole, and school and district planning (Fagan and Wise, 2007).

The most positive areas affecting perceived competency levels were related to assessment, consultation with teachers and families, development of IEP and behavioral interventions,
and participation in professional development. These activities are all related to the identification and placement of students in special education programs which is the major role (traditional) of school psychologists today. The most problematic items related to candidate's perceived competency in working with site and district personnel to develop programs, plans, and policies. In most traditional school psychology programs, assessment has been the primary focus of the curriculum. It is also the most time consuming task in daily practice in the field. Therefore it was not unanticipated that the vast majority of candidates perceived themselves to be exceedingly competent in that domain. The next grouping of items demonstrating higher levels of competency were in the domains of consultation and collaboration. Like assessment, consultation skills are emphasized in several courses throughout the program and are frequently highlighted in the internship daily tasks. These skills are those that are in a direct one-to-one relationship with school staff. In other words, the school psychologist is competent when working with a singular or small group of teachers or parent. The activity is also one that places the psychologist in a role of giving information more often than receiving it. The responses also showed that candidates felt comfortable in areas that were directly related to course instruction and internship opportunities. Assessment and consultation have been major elements of school psychology programs for many years; therefore, supervisors in the field have a strong understanding and experience with these skills. It is probable that candidates follow the model of their supervisors and focus their activities on tasks displayed by them.

Negatively rated perceived competency were activities that are often outside the traditional focus of school psychologists. Candidates strongly identified activities with administrators as areas in which they were very incompetent. Often school psychologists are perceived by administrators to be "independent contractors" who come into the school, test students, and do not participate in the educational process. It has been only in recent years that the NASP (2006) has put emphasis on a broader range of domains, including those that place the psychologist in a working relationship with site and district administrators to assist in problem-solving and development of programs. University programs may not place the same emphasis in these areas as they do other skills; therefore, there is less opportunity for the candidates to understand the roles required to fulfill this new responsibility. Without opportunities and support from site supervisors during the internship period, candidates may not have favorable environments and encouragement to pursue uncharted waters.

There are several implications for university faculty from this study. The first is the clear separation between skills in which candidates perceive themselves to be competent or non-competent. Program curricula should be evaluated and analyzed to determine a balance between traditional and non-traditional skills. Candidates clearly perceive themselves as competent in traditional areas. However, there does not appear to be a connection between the traditional base competency and the use of it in other areas. For example, courses lending themselves to the assessment process should focus on using the information in a broader arena than only for identification purposes. Using the analytical skills taught in the curriculum to evaluate site and district programs would expand the role of school psychologists and place them in a position of managers rather than providers.

Course learning outcomes should be recognized and opportunities be given to practice explicit tasks supporting the competencies. Course syllabi should identify activities which give candidates situations in which they can understand the purpose of the role. Instructors must be proficient in the required skills and use them within their own practice. Identifying the competencies early in the process and having on-going formative evaluations would provide candidates with information regarding their skill level prior to the internship period. Lastly, the selection of site supervisors should be carefully evaluated. If specific skills are not available for candidates to practice during the internship due to the lack of skill by the supervisor or the district's policies, the university must intervene to assure the competency of their candidates as this is the primary function of the training program. Although
evaluative data is collected throughout the internship, it is usually at the determination of the site supervisor whether or not the candidate has exhibited the skills and is competent. Ongoing dialogue between the candidate and faculty is necessary to assure opportunities are given for experiences in all domains.

The small number of respondents is a limitation of this study. This study is a part of a larger longitudinal study evaluating several aspects of the school psychology program at one university on six campuses. The results, however, do mirror the a priori experiences of the researchers who have been in this field for many years. More research is needed in the area of perceived competencies of candidates in school psychology programs prior to their graduation.

REFERENCE


Ball, D and Forzani, F (2011), How can we improve teacher quality? *American Educator*, vol summer, pp 17-21


*Code of Ethics*. 2012. Sacramento, CA: California Commission on Teacher Credentialing; Sacramento, CA


Reneau, M (2013) Teaching nurses sight unseen: comparing the cultural competency of online and on-campus, *Journal of Transcultural Nursing*, vol 24, pp 78


First Year Assessment ReDesign - A Programme Approach

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**ABSTRACT:** A key priority of University College Dublin's (UCD) Education Strategy (2009-2014) is 'to foster early and lasting student engagement'. A central strand of this was a strategic *Assessment ReDesign Project*. In 2011/12, the project was implemented in five programmes, with the Deans leading the process and involving all their first year Module Coordinators. The project methodology centred around three full-day facilitated workshops with these Programme teams. A programme mapping tool was used to reflect on gaps/overlaps in the programme and actions plans were devised for first year assessments. In evaluating the Deans' and Module co-ordinators' views, the Deans in particular valued the opportunity to take a programme overview and to a lesser extent the changes made to first year assessment. The coordinators highlighted a significant intention to reduce assessment overload and to develop assessment for learning activities in their first year modules. In summary, findings from this project demonstrated the success of a collaborative and flexible programme approach to curriculum innovation.

1 Introduction

UCD is Ireland's largest single-campus institute of higher education and was the first Irish university to achieve a fully modular programme structure in 2005. While initial energies were focused on implementation of a re-structured curriculum (2005-2008), the most recent UCD Education Strategy (2009-2014) prioritises enhancement of the learning experience and identified as one of its key aims 'To foster early and lasting student engagement'. This paper evaluates a programme approach to the review and re-design of first year assessment to achieve effective learning and student engagement, while still being efficient for staff. This project was developed by UCD Teaching and Learning as a central strand of a wider strategic initiative - *Focus on First Year*³. The design of the project, particularly the dual-emphasis on effectiveness and efficiency, was informed by a similar (though much larger-scale) initiative undertaken by University of New South Wales (UNSW)⁴. The UCD approach centred on three full-day workshops involving programme teams, each with clearly defined outputs. A central element of this programme-based approach was a curriculum mapping exercise which involved mapping stage 1 modules to stage 1 outcomes and programme outcomes. Revision of assessment was framed in terms of alignment with UCD First Year Assessment Design Principles (O'Neill & Noonan, 2011a & 2011b). In this paper 'programme' refers to a full degree programme, 'module' refers to accredited self-contained component of the programme and 'stage' refers to progression points towards completion of programme, generally corresponding to year of study.

2 Literature Review

2.1 Curriculum Design and Programme Mapping (focus on assessment)

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³ Launched in 2010 a major 'Focus on First Year' strategic initiative explores the development of the most effective curricular structures, assessment strategies and academic supports for first year students across all undergraduate programmes.

Knight (2000) in his work on assessment highlights the importance of addressing assessment issues from a strategic perspective. He emphasises that many of the tensions associated with assessment, for example the challenge of efficiently obtaining both validity and reliability, can only be addressed by taking a wider more strategic approach to assessment change. Mutch (2008) and Ross (2010) reiterate this strategic approach to ‘thinking about assessment’. Many of the authors in the field of curriculum design (Fink, 2003; Ornstein & Hunkins, 2009; Wiggins & McTighe, 2005) discuss the efficiency of a programme approach and in addition they advocate the importance of alignment of assessment to the programme's educational philosophy, the programme outcomes and/or its graduate attributes. This driver for both efficiency and alignment has, in recent years, produced a growth in the practice and literature around curriculum mapping (Ducasse, 2009; Sumson & Goodfellow, 2004). In particular there has been an interest in how these are mapped to graduate attributes (Lowe & Marshall, 2004; Sharp & Sparrow, 2002; Treleaven & Voola, 2008). A review of some of these tools notes how the level of detail and presentation of these can vary, but they have in common the intention to map the assessments to the graduate attributes or programme outcomes (O'Neill, 2009).

The UCD Assessment ReDesign project had a focus on first year assessment, however it was decided that the most useful way of addressing this would be through developing a programme approach and to use a curriculum mapping tool as the first step in exploring these assessment practices.

Over the last 10 years there has been international interest in the first year experience and as part of this, a focus on first year assessment (REAP, 2010; Krause & Coates, 2008; Nichol 2010). Based on the literature in this area UCD had developed a series of assessment design principles for first year, both for staff working at programme level (i.e. Deans, Heads of School) and for module co-coordinators considering their first-year assessments. Table 1 sets out these nine assessment design principles.

<table>
<thead>
<tr>
<th>Programme Design Principles</th>
<th>The Module Design Principles</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Create space in the curriculum for inducting learners into the key discipline/subject concepts</td>
<td>4. Regular low stakes assessment with feedback</td>
</tr>
<tr>
<td>2. Develop a strategic approach to the selection of assessment methods, i.e. mapping assessments to ‘core’ learning outcomes for the stage</td>
<td>In class student peer review of learning</td>
</tr>
<tr>
<td>3. Implement a range of approaches to streamline assessment workload for staff and students</td>
<td>Well-structured collaborative learning and assessment</td>
</tr>
<tr>
<td></td>
<td>Effective sequencing on module learning and assessment activities</td>
</tr>
</tbody>
</table>

2.2 Curriculum change processes

Blackmore and Kandiko (2012), in their analysis of strategic curriculum change in research-intensive universities, identified a clear sense of purpose and strong leadership as important factors in successful curriculum change initiatives. They also argue that universities are complex and diverse organisations and that disciplines and professional groups "have their own way of knowing and being that are not readily reducible to a common formula" (p 209). They cite examples of effective change where local interpretation of an institutional priority/framework was encouraged, resulting in greater ownership and flexibility in relation to the change process.

Dempster et al (2012) also focus on the importance of ‘ownership’ in their evaluation of the ‘Course Design Intensive’ (CDI) model of academic development. This model focuses on
programme-level development and highlights the importance of making time for staff to work collaboratively and reflectively on issues of curriculum innovation and design. They also note the importance of ‘buy-in’ by programme leaders and department heads in facilitating this. Healey et al (2013) conclude that “discipline-based department teams, rather than individuals, can be strategic targets for effective change” (p. 42).

3 The Project

Although UCD has adopted a learning outcomes curriculum, there are no meta-level policy instruments nationally, such as Programme Specifications or Subject Benchmark statements, which draw attention explicitly to Programme outcomes and their link to curriculum. Therefore placing attention on the articulation of programme outcomes and their alignment to module outcomes provided a useful starting-point to the change dialogue by focusing attention on the role of First Year Assessment in achieving the programme's ultimate educational aims. Additionally, while professionally accredited programmes are subject to a regular cycle of review, non-accredited programmes are not reviewed holistically though constituent modules are reviewed annually by Schools.

3.1 Key features of the UCD Assessment ReDesign Project

Phase 1 of the Assessment ReDesign project was implemented in 2011/12 with five UCD Programmes, who had expressed an interest in assessment enhancement as part of the Focus on First Year project 2010/11. The participating programmes were: Architecture, Physics, Radiography, Social Science and Veterinary Medicine. In keeping with the programme approach to assessment, the project was led locally by the Dean/Head of School and also involved Stage/Programme Directors and all first year Module Coordinators. UCD Teaching and Learning staff (working in pairs) facilitated the project process with each of the five programme teams. The project timelines were tight (December 2011 - April 2012) to align with curriculum management system deadlines. Table 2 sets out the structure of the project and the outputs, content and participants for each workshop/meeting.

Table 2: Structure of the Project

<table>
<thead>
<tr>
<th>Overview of Workshops facilitated by UCD T&amp;L Staff</th>
<th>Staff Involved</th>
<th>Outputs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preparatory Meeting, including review of Programme and Stage 1 baseline assessment data</td>
<td>Programme Dean and Programme Lead</td>
<td>Agree details of project format to address specific context of programme</td>
</tr>
<tr>
<td>Workshop 1 (full-day):</td>
<td>Programme Team</td>
<td>Headline Programme &amp; Stage Outcomes</td>
</tr>
<tr>
<td>1. Overview of project &amp; expected outcomes, followed by Q&amp;A session</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Focus on articulating programme &amp; stage outcomes (aligning with UCD Graduate Attributes &amp; relevant professional body frameworks)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Workshop 2 (full-day):</td>
<td>Programme Leaders &amp; representatives from each stage</td>
<td>A map of teaching, learning &amp; assessment activities for all stages</td>
</tr>
<tr>
<td>1. Using the mapping tool, evaluate each stage vis-à-vis the teaching, learning &amp; assessment activities. Identify assessment gaps &amp; duplication.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Introduction to the idea of ‘Programme Assessment Equivalence Guide’ for different assessment approaches. <em>(take-home exercise)</em></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

5 From here on out the Programme Dean and Programme Lead are collectively referred to as ‘Programme Leaders’
<table>
<thead>
<tr>
<th>Workshop 3 (full-day):</th>
</tr>
</thead>
<tbody>
<tr>
<td>Using the a) First Year Assessment Design Principles, b) revised stage outcomes, c) overview of current practice, re-design your module assessment.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Programme Leaders &amp; all first year module coordinators</th>
<th>Stage 1 Plan, outlining individual module assessment changes</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Development Workshops (post-project):</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 hour workshops post-project to support first year module coordinators to implement new approach to assessment</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Open to all staff</th>
<th>Overview, practical examples and resources on specific assessment strategies</th>
</tr>
</thead>
</table>

A programme mapping tool was developed as part of the project and was based on the aforementioned literature in this area. The tool was developed to be used within the time constraints of workshop 2, using an Excel spread-sheet. The tool allowed an in-workshop score on the extent to which the programme outcome were addressed (and assessed) for each module. However, the 'score' was used primarily as a tool to promote reflection and discussion on the programmes outcomes in relation to their assessment.

As in Table 2 above, the workshops therefore focused on both senior programme leaders (Workshops 1 and 2) and the module co-ordinators (Workshop 3), although these categories of staff were not always mutually exclusive and, based on the Programme/School size and context, many staff attended all three sessions.

4 Research Methodology

In order to gather the view of these two groups of staff, the formal evaluation of the project consisted of separate elements:

- Face-to-face interviews were carried out with the individual Programme Leaders (n=7), exploring their experience of the project process, the extent to which the project objectives were achieved and analysis of changes in assessment in their programme. At least one representative from each of the five participating programmes was interviewed.

- An online survey was distributed to the first year module coordinators (n=41), using Survey Monkey. This survey aimed to capture the extent and nature of planned changes to assessment in their first year modules, aligned with the UCD First Year Assessment Design Principles (see Table 1). There were 41 modules in the first phase of the project. (As some co-ordinators had more than one module in first year, the full sample of module co-ordinators in the project was 35 staff). 22 module co-ordinators had completed the on-line questionnaire, i.e. a response rate of 62%. These responses represented 31 (76%) of the 41 first year modules on the project. Table 3 sets out the responses by Schools/Programmes on the project.
Table 3: Responses by School/Programme

<table>
<thead>
<tr>
<th>Programme/Programme</th>
<th>%</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Architecture Programme</td>
<td>13.6%</td>
<td>3</td>
</tr>
<tr>
<td>Social Science Programme</td>
<td>13.6%</td>
<td>3</td>
</tr>
<tr>
<td>School of Physics</td>
<td>9.1%</td>
<td>2</td>
</tr>
<tr>
<td>Radiography Programme</td>
<td>27.3%</td>
<td>6</td>
</tr>
<tr>
<td>Veterinary Medicine Programme</td>
<td>36.4%</td>
<td>8</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>31.2%</strong></td>
<td>22</td>
</tr>
</tbody>
</table>

Ethical approval was sought and granted from the institution to carry out the research. Participants were assured that their comments would remain anonymous.

5 Research Results

5.1 Programme Leaders' Perspective

In analysing the results of the interviews, some key themes emerged from the data.

5.1.1 Motivation for getting involved in the Project

All of the Programme Leaders identified an existing interest in curriculum review/change and saw the project as a good opportunity to address a number of specific issues for their programme. Concerns about fragmentation across the Stage/Programme as a result of modularisation were cited by a number of participants who saw the project as an opportunity to re-focus on the overall programme ('big picture'). The participating professional programmes regarded the curriculum mapping component of the project as a good preparation for professional accreditation review. Awareness of some problems/challenges with particular modules, highlighted through poor student feedback, was a further motivation for a couple of programmes to engage with the project. The Programme Dean/Head of School was main driver of the project in all cases.

5.1.2 Strengths of the project process

The strengths of the project process are categorised under three main themes: flexible and adaptable approach; the workshops; and the role of T&L team.

Flexible and adaptable approach

While the aims of the project were clearly defined the approach adopted by the teaching and learning unit was seen as very flexible and the project was tailored to the needs of individual programmes. Advance collation and analysis of baseline data relating to the overall programme and assessment across stage 1 modules, which was undertaken by the facilitators and followed by a preparatory meeting with the programme leaders, resulted in the workshops being customised to focus on issues of import to the individual programme.

"I think the fact that they were adaptable was very important, a real strength"

The workshops

The full-day workshops 'away from the office', though logistically difficult to organise, was identified as an efficient way to work.

"...the one-day workshop is a very efficient way of focusing, the getting things done in block. If you try to do it in one-hour steps here and there, and you follow-up with paperwork,...it doesn't work".

The involvement of a group of staff with a common interest/purpose (i.e. the programme/stage) facilitated the emergence of shared understanding of the overall
programme and stage outcomes. The staff group extended beyond 'the usual suspects', with all participants having an equal voice.

"To understand your own programme is very useful because you're tinkering around every day with it, but you don't have a healthy distance, critical view to see what's really happening with the programme. So this exercise was ideal to look back - not look back - look forward - to see where we are heading really".

All of those interviewed reported that the workshops were well-structured and outcome-focused. The curriculum mapping exercise was particularly well-received and there was general consensus among the participants that they could apply the curriculum mapping exercise to other stages/programmes. Professional programmes in particular recognised the potential of the mapping exercise as a means of addressing accreditation requirements.

"It was a very nice simple approach to it [curriculum mapping] .....where in a few hours you could run through a stage in a programme and get a pretty accurate mapping exercise done. So from that point of view it provides use with that tool, and now we have it and have used it with other stages as well".

Other remarked on the value of making connections between programme outcomes, stage outcomes and then looking at what's happening in individual modules.

"The mapping exercise was very useful....it highlighted the kinds of demands on students and 'bunching' of assessments."

The role of T&L team
All of the participants commented favourably on the role of the T&L facilitators:

"So if there is someone watching from outside it's always interesting, because first of all they tidy up what you're doing and make sense of it, and second of all they point out to you things that are invisible to you because you are 'native'."

"It's really useful to have people coming from outside to a close-knit community and asking questions."

Interviewees also emphasised the importance of the exposure to new ideas around assessment and related expertise, seeing this as a key benefit of external facilitation. The post-project development workshop we also welcomed as important enablers of change.

5.1.3 Measuring the success of the project

The primary objective of the project was to redesign first year assessment to specifically address issues such as: overload of assessment; over-reliance on one type of assessment; lack of a Stage or Programme overview of assessment; and disengagement by students. In interviews, participants were asked to comment on (a) any specific changes to first year assessment as a direct result of the project and (b) any other outcomes that emerged. In the interviews, all participants cited one or more examples of changes to first year assessment as a result of the project, such as: (i) introducing some assessment for learning activities, mainly in the form of frequent low-stakes assessments; (ii) re-distribution of the weighting for various components of assessment within a module; (iii) some reduction in assessment across Stage 1; (iv) significant revision of assessment in an individual module; (v) implementation of a strategy to manage the timing of assessments across modules to minimise 'bunching'; (vi) development of online resources and associated formative assessment to enhance student engagement. While acknowledging these positive developments, the over-riding feeling among programme leaders was that the extent of
changes implemented was limited and that a radical revision of assessment across the stage had not occurred (yet).

"We knew already there were a couple of modules that we weren't completely happy with the mode of assessment, and we have restructured those as a result of going through assessment redesign."

"We said we would assess less but not sure if/when this will happen."

"Change takes time - at least two-three years".

The programme leaders identified other tangible outcomes from the project, which many perceived to be at least as valuable (if not more so) than specific changes made to first year assessment. The articulation of programme and stage outcomes was regarded by a number of participants as significant project outputs:

"The more we zoned in on the first year modules and what we would do differently it felt like the law of diminishing returns. The 'big picture' programme stuff was great, but when it came down to 'just change that bit in that module', it was like 'so what'."

"There is no point in having programme outcomes if you don't have the building blocks towards those."

Three of the five programmes introduced a new stage 1 core module aimed at introducing students to some fundamental concepts of their chosen discipline and supporting transition to university learning.

5.2 Stage 1 Module Coordinators' Perspective

The project was informed by the nine First Year Assessment Principles (see Table 1) and co-ordinators were introduced to these in the final workshop as part of the process. The survey explored the extent to which they planned to implement changes in these areas. Note that the original Assessment Principles 1 and 2 are collapsed into an overall question on Assessment for learning, as was done in workshop 3 in the project. The co-ordinators were asked whether they planned to use these at all, a little, or a lot (See Table 4)

Table 4: Assessment Design Principles in order of Intention to Implement (n= 22 coordinators)

<table>
<thead>
<tr>
<th>Assessment Design Principles</th>
<th>W*</th>
<th>N</th>
<th>%</th>
<th>Assessment Design Principles (Table 1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consider the demands of other parallel modules in the stage when planning my assessments.</td>
<td>34</td>
<td>14</td>
<td>64%</td>
<td>3</td>
</tr>
<tr>
<td>Reduce assessment work-load for staff, i.e. attention to word-count, reducing number of submissions.</td>
<td>33</td>
<td>11</td>
<td>50%</td>
<td>3</td>
</tr>
<tr>
<td>Design a more efficient and effective sequencing of the learning and assessment activities, i.e. focus on the sequence of lectures/tutorial/labs/on-line learning and assessment.</td>
<td>30</td>
<td>10</td>
<td>45%</td>
<td>7</td>
</tr>
<tr>
<td>Reduce assessment workload for students, i.e. reduce number or size of assessment tasks.</td>
<td>30</td>
<td>8</td>
<td>36%</td>
<td>9</td>
</tr>
<tr>
<td>Allow more assessment FOR learning opportunities, i.e. in/out of class activities where the primary focus is to allow students to get feedback on their progress.</td>
<td>30</td>
<td>12</td>
<td>56%</td>
<td>4 &amp; 5</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>w</td>
<td>%</td>
<td>Co-ordinators</td>
</tr>
<tr>
<td>-----------------------------------------------------------------</td>
<td>----</td>
<td>----</td>
<td>-----</td>
<td>---------------</td>
</tr>
<tr>
<td>Introduce more authentic assessment, i.e. use of assessments that reflect the subject/discipline in real-life, relevant contexts.</td>
<td>28</td>
<td>9</td>
<td>41%</td>
<td>8</td>
</tr>
<tr>
<td>Develop multiple opportunities for collaborative learning, i.e. peer or group work (assessed/not assessed).</td>
<td>25</td>
<td>7</td>
<td>32%</td>
<td>6</td>
</tr>
<tr>
<td>Create more time for introducing learners to the key challenging discipline or subject concepts, i.e. module is organised by themes/threshold concepts, etc.</td>
<td>24</td>
<td>7</td>
<td>32%</td>
<td>1</td>
</tr>
</tbody>
</table>

Note: W*= The weighting to include the amount (a little, a lot), N= Number of co-ordinators who applied this principle to their module(s)

The four highest weighting (W*) statements that they planned to address all related to the efficiency (reduction/streamlining) of assessment (see Table 4). Interestingly, the most popular approach to this was 'considering the demands of other parallel modules when planning their assessments', mentioned by 14 (64%) of the module co-ordinators. Given that the sample of 22 staff represents 31 modules, this figure could account for around 17-19 of the modules that had this principle applied to them. The intention to allow for more Assessment for learning opportunities was also an intended action by 12 (56%) of these co-ordinators. In exploring this in more details, the survey also teased out the approaches/activities that these staff hoped to use. There was a good range of new activities to be introduced (2012/2013) that would assist students in monitoring how well they are doing in their learning. Many were to be done as in-class activities. The in-class quizzes, in-class discussion group and other in-class group work were to be introduced by many (between 7-10) of the staff. Given that the sample of 22 staff represent 31 modules, this figure could account for around 13-15 of the modules that introduced these activities. Interestingly this appears to be implemented despite the large class sizes mentioned by many in the survey. The use of the on-line environment for formative MCQ's (including those with some additional feedback) and some problem-solving activities were quite popular activities, yet blogs and discussion threads were not introduced by anyone. In summary, the modules coordinators, in particular planned to improve the efficiency of their 1st year assessment approaches, and planned to use a range of assessment for learning activities.

6 Discussion and Conclusions

Both sets of data acknowledged that there were planned changes for first year modules in relation to increased assessment for learning activities and an improvement in efficiency in staff and student time. Both programme leaders and the module coordinators reflected on the importance of awareness of assessment activities of other modules, across the stage and/or the entire programme. The project appeared to be successful in using a collaborative and discipline-based process (Healy et al, 2013) that supported a strategic approach to assessment (Knight, 2000; Mutch, 2008, Ross, 2010). There was very positive feedback on the curriculum mapping tool, particularly in relation to its simplicity and its use in stimulating discussion and reflection on overall curriculum design. This contrasts with the experience of other curriculum mapping tools which have been criticised for: (a) emphasis on audit function; (b) complexity; (c) perceived lack of relevance to the discipline. There would appear to be a different emphasis in the perceived outcomes of the project between the two groups. The programme leaders highlighted the value of a strategic overview of the programme and the opportunity to reflect on the programme in its entirety. They believed that the modest changes to first year assessment were less significant project outcomes. In contrast the module coordinators (n=22) reported a range of planned changes
to first year assessment. The extent of implementation of these changes needs further research. In relation of the differing perspective around the key outcomes of the project and the extent of revision to first year assessment, this could be explained by the differing roles of the two groups. Although the extent of changes to first year assessment need further investigation, the longer term impact of a more strategic review of the programme, which engaged a wider group of staff, has the potential for strategic curriculum change. There is some evidence emerging from the participating programmes of curriculum innovations that were stimulated by discussions over the course of the project.

The process designed by UCD T&L focused on a macro approach to curriculum change which actively involved a wider community of colleagues in sharing their practice and reflecting on innovative design ideas. Dempster et al (2012) maintain that this approach to curriculum has "the most potential for sustaining innovation curriculum designs" (p 136). The flexible and adaptable approach adopted by UCD T&L, which allowed for customisation of the project to the programme context, emerged as a key characteristic of the success of the process and is consistent with the finding of Blackmore and Kandiko, 2012.

The participants maintained that the workshop format was an efficient way of working collaboratively to achieve curriculum change. Similar models such as the Course Design Intensive (CDI) model developed by Oxford Brookes University have produced evidence of success in fostering innovation as well as being efficient. These models maintain that "learner-centred, evidence informed design, developed in the peer-supported environment, is fundamental to successfully embedding new modes of delivery or pedagogic innovations." (Dempster et al, 2012, p 135).

7 Summary and Key Recommendations

This project was generally well received by the participants who noted its strategic impact on curriculum design including changes to first year assessment. The flexible, focused and evidence based approach were the hallmarks of this successful intervention. Some key recommendations for similar projects include:

This programme review process is transferrable to other strategic projects locally and internationally
Consideration needs to be given to the balance between the long-term impacts of a more strategic approach versus the achievement of immediate module-level changes. Ultimately the balance will be driven by local priorities and context.
Further research on the curriculum mapping tool needs to be carried-out and disseminated.

References

"How will we be examined?"
Aligning learning outcomes and assessment criteria for thesis courses in physiotherapy at bachelor and master's level

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Uppsala University, Uppsala, Sweden

ABSTRACT

Students only learn what they think they will be assessed on, and not what is in the curriculum. In curriculum development work, we addressed how to achieve a more explicit constructive alignment in thesis courses for optimising students' learning at both bachelor- and master level in physiotherapy. A project group (re)formulated, compared, and contrasted assessment criteria. Both students involved in writing theses and teachers supervising and examining the theses were involved in the implementation. The project was evaluated through interviewing students, supervisors, and examiners in focus groups. The results highlighted the importance of validating the level of assessment criteria with other programmes' criteria and between bachelor- and master level to ensure criteria are explicit and that students know what is expected of them.

INTRODUCTION

Aligning learning outcomes, learning activities, and assessment criteria to curriculum objectives is proposed to be a system for high-level learning and quality of outcome. However, students only study and learn what they think, or know, they will be assessed on, not what is actually stated in the curriculum (Biggs, 1996). From experience, one of the first question students raise during the introduced to a new course is "How will we be examined and on what parts will we be examined"? Students have, or should have, a reason to believe teachers will measure what is essential. The resentment that students focus on what is anticipated in the examination rather than focussing on learning outcomes can be taken advantage of by making expected course outcomes explicit through concrete assessment criteria. Thus, the students' results will reveal if they have achieved the course objectives or not.

Uppsala University, Uppsala, Sweden, presents guidelines for educational activity and development in the programme "Teaching and learning at Uppsala University". The guidelines are intended to be an active form of support for the heads of different programmes and for individual teachers and students. The guidelines emphasise how the responsibility for quality in teaching and education must be taken at several levels, such as the structural and supporting level, and as part of day-to-day activities. Quality in teaching is the shared responsibility of both teachers and students, and students responsibility has been given the same prominence as teachers' responsibility in these guidelines (University, 2008).

Thus, in order to optimise their study results, in all courses students have the right to be informed of the conditions for learning, the expected outcome in relation to assessment criteria, and how theses are linked to the examination.

Learning outcomes and assessment criteria

Learning outcomes in higher education curricula are often global in character. Thus, they are often perceived as unclear, and sometimes ambiguous, and of little assistance to student's understanding of what is expected in examinations.
The assessment criteria state what students are required to do and how well they are expected to achieve the desired learning outcomes. The use of assessment criteria is important for all students, and especially students who are nervous before an examination (Ramsden, 2002), and are valuable for students unaccustomed to studying at a higher level. Clear assessment criteria make it easier to communicate the result of an examination and facilitate and guide supervision and examination of, for example, a bachelor or master level thesis (Elmgren and Henriksson, 2010).

The link between learning outcomes, learning activities, and assessment criteria may appear obvious, but it is still not characteristic in higher education. The term "constructed alignment" was first presented by Biggs (Biggs and Tang, 2007). The term "constructive" is used to clarify the constructive part of the process, that is students construct their learning, and by that their knowledge. The word "alignment" is used to clarify the direct relationship between learning outcomes, learning activities, and examination.

Bachelor level thesis in physiotherapy at Uppsala University
The physiotherapy programme consists of six semesters i.e. three years. The teaching of scientific methodology starts in the first semester, with reading and reviewing scientific articles in physiotherapy, and finished at the end of the sixth semester, with a bachelor thesis corresponding to 15 credits. A project plan for the thesis is written and examined in the fifth semester. The project plan and the final thesis are written in student pairs: the reason for this is to encourage peer learning. Thus, the students are assessed twice in the thesis courses, first on the project plan, and then, on the final thesis. The bachelor theses are mainly supervised by teachers with a master degree in physiotherapy. At Uppsala University (physiotherapy), approximately, 20 project plans and 20 bachelor theses are examined every semester and the pass rate is 100%. Senior lectures with a PhD degree examine the bachelor theses and the students can either fail or pass these courses.
Although the process of aligning learning outcomes and assessment criteria for these courses at bachelor level has been initiated, it is unclear and incomplete, particularly in distinguishing the difference in expectation of outcomes for the master level thesis.

Master level thesis in physiotherapy at Uppsala University
Students writing a 15-credit master's thesis at Uppsala University can either be physiotherapists with a bachelor degree finished up to 20 years ago or newly examined from the bachelor program. Courses in scientific methodology and specialisation in physiotherapy corresponding to 45 credits are required before of writing the master thesis and it is the same for all applicants. Before a thesis at master level can be started, a project plan is examined and the students can either fail or pass this course. Master theses are supervised and examined by teachers with a PhD, and about 10 project plans and 10 master theses are examined every year in Uppsala (physiotherapy). However, the alignment between learning outcomes and assessment criteria for both the project plans and thesis at the master level has not been fully developed.

The aim of steadily increasing the expectations and results of both bachelor and masters level theses raised the question among both the directors and teachers of how well the assessment criteria mirrored the difference between outcome expectations between the bachelor and a master thesis. This in turn raised the question of whether the bachelor thesis was almost a master level thesis. Several times, we asked ourselves whether the expectations at bachelor level are being escalated steadily and unreflectively. As a result, we addressed how explicit constructive alignment in the thesis courses could be achieved for optimising students’ learning at both bachelor- and master level in physiotherapy, while maintaining a reasonable and valid difference between the two levels.
The overall aim was to set up a learning environment on the program that supported students' learning and their ability to achieve the desired learning outcome in relation to writing a scientific thesis, while simultaneously supporting and guiding supervisors and examiners.

Furthermore, students raised the question of the need for "fair" assessment of their theses, particularly at bachelor level. Course evaluations revealed students felt the theses were examined differently and the results of the examinations were dependent on the examiners own opinion.

In addition, there were consistent requests from students, supervisors and examiners for clearer guidelines in the thesis courses of the alignment between learning outcomes and assessment criteria. Assessment criteria would maintain a standard of high and consistent quality throughout the theses, as they clarify the outcome expectations for students, supervisors, and examiners.

Therefore, we hypothesised clear assessment criteria in alignment with learning outcomes for theses courses at both bachelor and master levels would facilitate thesis supervision for students, supervisors and, examiners.

The overall aim of the curriculum development project was to enhance students' learning of how to write a thesis, critically review thesis work at both bachelor and master levels, and to ensure equal examination of the final theses. The aim was to enable students, supervisors and examiners to be able to distinguish the difference between expectations for theses at bachelor and master levels and to guide students their work. Hence, a more specific aim was to formulate, implement, and evaluate the assessment criteria for bachelor and master level theses in order to clarify the expected outcomes and requirements.

METHODOLOGICAL CONSIDERATIONS

The curriculum development project was a continuous process planned and carried-out between January 2011 and February 2013. The project group consisted of four senior lecturers in physiotherapy. The composition of the project group reflected aspects and requirements relevant to the respective level being represented, and included supervisors, examiners, and master students. Unfortunately, no student at bachelor level chose to participate in the project.

Process
The project included four overlapping steps and was continuous.

Step 1: Formulating assessment criteria
The first step included the revision of unclear assessment criteria by course coordinators at both bachelor and master levels, who in turn suggested new assessment criteria. Then the project group formulated assessment criteria in each thesis course in relation to the learning outcomes at the respective level. The formulation of criteria was guided by the objectives of the SOLO taxonomy, which is a hierarchy of verbs for aligning teaching, learning activities, and assessment, and included verbs as describe, explain, analyse, relate and reflect. The assessment criteria suggested were then discussed with the supervisors and examiners and tested in the respective courses. In order to enhance validity and a progression in the learning outcomes between bachelor and master level theses, the assessment criteria were discussed and contrasted among teachers in our own department.

The assessment criteria for "students critical reviewing" of another thesis were also formulated during step 1, with the aim of supporting the students' ability to systematically analyse each others' project plan and thesis. These criteria were formulated to emphasise both the scientific and communicative aspects of the learning outcomes.

Step 2a: Reformulating and implementing new assessment criteria
The second step in the process included a seminar with the teachers in Nursing at the Department of Public Health and Caring Sciences at Uppsala University. This seminar was considered worthwhile because two similar caring programs, within the same medical faculty, would have a common level of assessment criteria, although not necessarily identically worded. The seminar aimed to exchange, evaluate, and discuss each department's theses and to discuss the validity and progression in learning outcomes between bachelor and master level theses. The seminar resulted in explicit formulation of assessment criteria and expected outcomes for achieving, consistency in the assessment criteria across programs and clearer distinction between bachelor and master level theses at both programs.

After discussion with colleagues at the Department of Public Health and Caring Sciences and comments from students, supervisors and examiners in our own department, the criteria were reformulated and shortened.

Step 2b: Implementation and further validation
This step included two seminars with supervisors and examiners at master level from the Section of Physiotherapy, Karolinska Institute in Stockholm. The first seminar included comparison and discussion of the reformulated criteria and a comparison of the different levels of the theses: a bachelor thesis was compared with a master level thesis. After this seminar, the master level criteria were again reformulated, and later tested in the master level course at Uppsala University. A future step would include exchanging master level theses between Uppsala University and Karolinska University for validating equal assessment criteria at master level in the respective program.

Step 3: Evaluation
The curriculum development was evaluated through three focus groups interviews with students, supervisors, and examiners on both bachelor and on master courses to explore experiences with the new assessment criteria. Each group represented both bachelor and master level.

A specific interview guide for the focus groups was created and covered areas such as experience, knowledge, use, and understanding of the assessment criteria. Follow-up questions explored individual answers. An example of a question to the supervisors was "Tell me about a situation when you think it worked well with the assessment criteria and a situation when you think it did not worked well with the assessment criteria in a supervising situation".

One moderator stimulated an informal discussion between the participants and ensured that sessions progressed smoothly, and that all topics were covered. The discussions in the focus groups were tape recorded and lasted between 45 to 60 minutes. The interviews were transcribed externally.

Analysis
The process of analysis followed modified guidelines for qualitative content analysis according to Granehein and Lundman (Graneheim and Lundman, 2004). The interviews were read several times by the project group to become familiarised with the material. The participants’ experiences of the assessment criteria were extracted and combined into one text, which constituted the unit of analysis. The text was divided into meaning units and than condensed to sub-categories, which constituted the manifest content. Finally, the underlying meaning, the latent content of the categories (Graneheim and Lundman, 2004), was identified. The analysis of the transcribed data was in Swedish, which was translated into English at the time of submission of this paper.

RESULTS
The four steps in the curriculum development project gradually generated an explicit formulation of the assessment criteria in relation to expected outcomes, which were formulated in the learning outcomes of the courses. An example of an assessment criterion at bachelor level for the introduction of the thesis:

"Introduction with logical structure; description of problem area, definitions of key terms, relevant literature review, problem statement, limitation of aim, distinct questions based on aim".

This is to be compared with the corresponding assessment criteria on master level:

"Introduction with logical structure; description of problem area, definition of key terms, thorough literature review clearly linked to theory and/or empirics, clear problem statement based on identified knowledge gap, limitation of aim, distinct questions based on aim".

The difference between the two levels was that master level students were required to perform a thorough review of references, including critical evaluation, and present an obvious link to theory and/or empirics.

Another outcome of this project was the results from the focus groups interviews. For the purpose of this paper, only the main results are presented as categories and sub-categories (Appendix 1).

One category formulated from the discussion with bachelor and master level students was "Control" which indicated the assessment criteria served as guidelines for control i.e. the mandatory parts of the thesis were included in the thesis before the actual examination seminar. The assessment criteria provided a sense of support and security for the students as they felt they were on the "right track" i.e. a determination of level of their thesis.

However, the students claimed the assessment criteria could not stand alone, highlighted in the category "Operationalisation needed" meaning elaborated, information and description in the course manual/study guide was necessary to complement the criteria e.g. how to write the design and result section. The category "Consensus", which also emerged from the student group, indicated a request for more consistency between the examiners and between the supervisors and examiners. According to the students, assessment criteria could improve this consistency.

Finally, another suggestion from the students summarised in the "Push and remind" category, implied both teachers and supervisors should regularly emphasise the use of the assessment criteria during the work with the thesis.

A central answer from the supervisors, compiled in the category "Authority", was that the assessment criteria provided a feeling of support in their role as supervisors i.e. they felt they had authority when supervising the students, and were supported in the determination of level of the thesis. For instance, a supervisor's demands were not their own personal demands, but the demands were the same for all students. The assessment criteria provided security and control, brought together in the category "Control", meaning the thesis being supervised would pass the examination. The assessment criteria helped the supervisors to perform an activity-promoting form of supervision, which was summarised in the third category "Responsibility", meaning they could pass more of the responsibility for the progress of the thesis to the students. The category "Room for interpretation" implied supervisors considered the assessment criteria created uncertainty, in that discretion sometimes left them with undefined variables and difficult decisions during the process of supervision. The supervisors requested continuous dialogue with the examiners.

The most experienced examiners used a combination of the assessment criteria and their tacit knowledge as a guide, which was compiled in the category "Internal compass". However, the novice examiner more frequently used the assessment criteria as a checklist for control, resulting in the category labelled "Control". Experienced examiners considered the advantage of the assessment criteria was that the criteria provided a freedom for interpretation of the content in the theses, whereas, novice examiners felt insecure as
examiners when presented with the possibility of individual interpretation: this is summerised in the recurrent category labelled "Room for interpretation". The category "Quality" was highlighted as examiners discussed the need for calibrating the assessment criteria in a dialogue between examiners and between examiners and supervisors. The examiners considered the work with assessment criteria is a never-ending story!

DISCUSSION
Students, supervisors and examiners argued coherently that the assessment criteria gave provided a valuable feeling of control, security and "being on the right track". The students and the supervisors argued the criteria were more valuable when used in conjunction with more detailed information in the course manual. The examiners mainly combined assessment criteria with their tacit knowledge. However, when and how the criteria were used differed between the individual informants, between novice and expert supervisors and examiners, and between students at bachelor and master levels.

The results highlighted the importance of continuously reformulating and validating the level of the assessment criteria between the supervisors, between the supervisors and examiners, with students and with other programmes criteria. This, "never-ending process" is necessary to produce clear and explicit criteria for ensuring students know what is expected of them at each level, and for how the difference between the two levels is expressed and made visible in the assessment criteria. The assessment criteria of "how well the student can analyse and discuss another student's thesis" help students become systematically and analytically confident and able to communicate this.

During this curriculum development work, the quality of the theses at both levels increased. The students achieved increasing ability to formulate research questions and to review critically. There was also an increased consciousness among students, supervisors, and examiners about fulfilling the required learning outcomes. A combination of these outcomes may mirror the result of the Swedish Higher Education Authority from 2012, which judged the physiotherapy program at Uppsala University to have the highest quality of education (very high quality).

The curriculum development work implies several recommendations for future. For achieving a constant level of "very high quality" within the program for examining new physiotherapists ready to be consumers of research, and attracting students to be scientists, the joint interpretation of assessment criteria, though joint seminars is necessary. The students emphasised that both students and supervisors need to use the assessment criteria continuously throughout the thesis process. In addition, new examiners and supervisors require further support, which highlights the need for continuous internal education and dialogue between examiners and supervisors.

Table 1A, 1B and 1C
All categories and sub-categories from the focus groups interviews with, students, supervisors, and examiners.

**1A. Students**

<table>
<thead>
<tr>
<th>Category</th>
<th>Sub category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control</td>
<td>Determination of level Guidelines</td>
</tr>
<tr>
<td>Operationalisation needed</td>
<td>Necessary to be combined with the course manual</td>
</tr>
<tr>
<td>Consensus</td>
<td>Feeling of consistency</td>
</tr>
<tr>
<td>Push and remind</td>
<td>In teaching and supervision</td>
</tr>
<tr>
<td>Support</td>
<td>Security</td>
</tr>
</tbody>
</table>

**1B. Supervisors**

<table>
<thead>
<tr>
<th>Category</th>
<th>Sub category</th>
</tr>
</thead>
</table>
Authority | Determination of level Support
---|---
Control | Make sure the students pass examination Consensus between examiners Security
Responsibility | Peer-learning Responsibility for their (students) own learning
Room for interpretation | Create uncertainty Define variable concepts Dialogue with examiners
Operationalisation needed | Necessary to be combined with the course manual

1C. Examiners
Category | Sub category
---|---
Internal compass | Together with tacit knowledge
Control | Determination of level
Room for interpretation | Overall
Quality | Dialogue between examiners and between examiners and supervisors Calibration Process evaluation needed Never-ending!

REFERENCES
The curriculum challenge in business schools, post GFC: What, and who really matters?

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ABSTRACT:
In late 2008, just after the onset of the Global Financial Crisis, a large Australian business school embarked on a curriculum renewal process. I was a member of the panel, and the project became the site of my PhD study. My research showed that discourses relating to managerial, business/competitive and global issues are highly evident. What is far less evident is a discussion of the student as a learner, a particular issue with trends in technology creating a new "species" of student - a "singularity" of human and machine. The paper attempts to demonstrate that higher education curriculum change includes a layered set of discursive practices, and that the topics of these discursive practices are as likely to be the organisation, as about the student experience of curriculum. Challenges and opportunities related to researching the practice of curriculum renewal are raised.

1. Introduction

This paper covers a subset of findings of a PhD study on the practice of business curriculum change - findings which are intended to be of immediate relevance to curriculum practitioners at this conference. The paper includes a brief literature review, and describes the methodology. The discussion highlights the dominance of certain discourses, and the limited presence of others, which might be expected to be dominant. The paper ventures into theorizing of higher education curriculum change, aims to raise questions about the nature of the practice, and to suggest new areas of focus. Although the study was undertaken within a business school, the findings have relevance to higher education curriculum practitioners in general. At this point I would like to acknowledge the commitment of all those involved in the whole curriculum project, and my research, even though their contribution may not be specifically referred to in this paper.

2. Background and literature review

In late 2008, a large business school within an Australian City University embarked on a curriculum renewal process for the main undergraduate business degree. This occurred just a few months after the collapse of Lehman Brothers and the beginning of the Global Financial Crisis (GFC). Prior to the GFC there had been criticism of business/management education, but much of this discussion was considered marginal, Ghoshal, (2005), Pfeffer (2005), Clegg and Ross-Smith (2003), as business schools were generally highly successful in a booming global economy.

With the onset of the Global Financial Crisis, critiques of business education moved from fringe to mainstream. The media critique began to spread beyond the behaviour of individuals and institutions, and to include the nature of business, financial and economic knowledge, and theory itself. Lord Turner (2009) in the inquiry into the UK Banking Sector noted that financial sector staff were not equipped to understand the complexity of the system. Alan Greenspan - leading free-market economist, ex-Chairman of the US Federal Reserve, was forced to admit "I was partially wrong". The review panel was faced with the challenge of renewing curriculum, to respond to the demands of a post GFC global economic environment. These demands appeared primarily in media, and from managers of business schools, who, while critical of the current status of business and management education, provided little practical advice on what should be done, and how this might be achieved.

2.1 Curriculum and curriculum theory in higher education
While my primary role in this project was as an academic developer, in my parallel role as a researcher, the problematic nature of the term "curriculum" soon became evident. A useful starting point in this area was Fraser and Bosanquet's (2006) The authors suggest that in all communications on "curriculum" we should consider that the various conceptions of curriculum are rich in tacit epistemological underpinnings that neither the user of the term, or the reader/listener, may be aware of.

UK curriculum theorists, Barnett and Coate (2006) note the lack of writing on higher education curriculum, and even note the absence of the word within government reports. They express the concern the result of limited understandings of curriculum amongst higher education academics is leading to a "curriculum by stealth" - that curriculum is being transformed, but in a way which is not inviting broad-ranging dialogue. Some parallels may be drawn with the Australian context. One of the most recent and influential policy documents on learning and teaching in Australian higher education, the Bradley report, (2008), uses the word 'curriculum' 6 times in 304 pages, but it is not defined or explained, and is used in the form, "xxx (a new thing) should be included in the curriculum", suggesting a content emphasis.

Curriculum theory is however well developed within the education discipline and particularly, in the schools sector. These theoretical perspectives have relevance to the higher education sector, even if not particularly evident in higher education literature. Pinar (1999) refers to curriculum as a 'site of struggle'. Although this concept did not originate within the higher education curriculum sector, this description of curriculum provides a richness of the social context in which curriculum is created and shaped, and has relevance to my proposed study. 

"So understood, curriculum becomes in- tensely historical, political, racial, gendered, phenomenological, postmodern, autobiographical, aesthetic, theological, and international. When we say that curriculum is a site on which the generations struggle to define themselves and the world, we are engaged in a theoretically enriched practice. When we say that curriculum is an extraordinarily complicated conversation, we are underscoring human agency and the volitional character of human action" (Pinar, 1999).

The documented curriculum in the higher education tends to be developed at a more localised level than schools based curriculum. In Australian Higher Education, there is little requirement for students to undertake standardised diagnostic tests, nor is there a requirement to complete standardised final year exams. Even in business education, where there are requirements to conform to external professional accreditation requirements, it appears that individual academics and faculties have a great deal of autonomy in content and delivery. Furthermore, teaching is generally only one aspect of an academic workload, and contends with research, community service, and other activities in the determination of local and personal priorities. Pinar refers to the contestation between curriculum imposed by an external bureaucracy, and the autonomy of academics, as a major issue within curriculum studies. The issue of agency in higher education teaching and learning innovation has also been raised by Paul Ashwin (2009) as an area which is worthy of further exploration.

2.3 Higher education curriculum change

Although, my work may offer insights into the nature of higher education curriculum, it is primarily focused on the practice of curriculum change. From my experience, and my reading, academics who are or who have been engaged in large-scale curriculum renewal view the process as difficult. Bamber et al (2009) and Ramsden (2006) review a number of examples of curriculum change, sometimes called teaching innovations or enhancements - some of which are successful, some unsuccessful. In analysing the reasons for the success or otherwise of the change, the authors and contributors tend to evaluate the change after the innovation has been implemented. I have found that within higher education research, there appears to be little published work which investigates the practice of the creation of a higher education curriculum innovation. The current status of higher education curriculum research suggests and that there is a great deal of space for exploration, and also the
potential to develop descriptions, and conceptions of higher education curriculum from research originating within the higher education sector.

3. Methodology

This study was undertaken at the Australian city university, where I am employed as an academic developer. In my work, I was engaged in this curriculum renewal project as part of the undergraduate review panel. My role as a researcher was both as participant-observer, and insider-outsider - insider to the institution and the academic field, but outsider to the business school. Although there are legitimate concerns about researching one's own workplace, my insider understandings allowed me to follow connections through the organization, both relational and documentary. This project ran for more than two years, from inception until the first iteration of the new program structure. While the site offered access and the potential for in-depth insights into the process of large-scale curriculum change, it appeared to provide the potential for broader generalization of its findings.

The site of the case study may be considered as a representative case of a large Australian business school. First year, main intake, cohort sizes are around 1,500, and, as is the case in many other business schools in Australia, there are a large number of international students. It is generally recognized that business and management education tends to be influenced by trends originating in the leading international business schools, and is therefore global in nature. The school had demonstrated its international level of quality through its international business school accreditation.

At the beginning of the study, there could be no guarantee that the curriculum renewal would be successful, however, the renewal process was supported by two deans, both of whom expressed a desire for an innovative outcome. The project was supported with administrative personnel, and led by experienced academic staff who understood university administrative practices and priorities, and also the interests of many of the staff from the business school. The process was likely to provide valuable data for my original research question: "How are social, historical, policy, academic and disciplinary discourses incorporated within the process of documenting curriculum?"

Since the completion of the curriculum review, there have been objective external assessments made about quality processes in the school suggesting that the processes would be considered exemplary practice and some curriculum practices have been recognized as highly innovative by the university and industry. When generalizing findings from the study, the case could be considered a 'critical case'. If there are good practices occurring in this case, yet some practices are not occurring, then perhaps they are not occurring in other similar cases as well. In this paper, I will be suggesting that the discourses which are less evident, also have significant relevance to business education, and the higher education sector as a whole.

My data included many texts, included collaboratively produced documents, and interview transcripts. This documentation produced was accumulated into an 800 page document which was presented to the Business School Faculty Board for approval. This document was viewed as a text and analysed to determine the various discourses which were evident in the process, and as this was produced by a large number of different people, is data which is to some extent distanced from my subjectivity. At the completion of the project, I also undertook 9 interviews with staff who were involved in the project - members of the core undergraduate review panel, senior school management, and senior institutional management, all of who had influence on the project. Based on "the assumption that language is an irreducible part of social life, dialectically interconnected with other elements
of social life" (Fairclough, 2005) the texts were analysed using various forms of discourse analysis after Fairclough and others.

4. Findings and Questions

4.1 Remarkable... A successful curriculum renewal project in an already successful business school

The project was considered successful, albeit in different ways by the various stakeholders. From an objective perspective, comparison of the old and new versions of the degree shows that changes were made both in the structure of the course, and in the content and assessment processes of individual subjects. New assurance of learning processes were implemented, and were recognized as excellent practice by an international business school accreditation agency. A radical new transdisciplinary flagship subject was created, and this has been recognized as innovative by industry and in formal institutional recognition processes.

What is remarkable about these changes is the context in which they were made. Published cases of successful curriculum change often refer to a crisis-driven change, for example a lack of viability, or unacceptable quality Bamber et al (2009), Ramsden (2006). Yet, this was a normal five-yearly scheduled curriculum review.

This school was not in an immediate crisis. It was recognized for its practice-oriented offerings, and the undergraduate business degree attracted large domestic and international enrolments. Although most countries were affected by the GFC, Australia's economy, and its higher education sector, remained relatively healthy in global terms.

A significant discourse of stasis permeated discussions and documents with the theme actually stated in interview texts "if it ain't broke, don't fix it." Even the need to respond to the issue of the potential failure of business and management education, post GFC, was contested. One manager commented on the challenges faced: "I mean, when you have a very successful product and business is going well, ... and everyone knows that products have life cycles and there should be a refresh and renewal, it's very difficult to get people to engage with thinking completely differently about curriculum renewal."

Reputational and financial risks of curriculum change

Within the texts there was a strong discourse of the reputational and financial risks of change. Business School enrolment income was not only important to the school itself, it was important to the institution as a whole, and specifically, to senior university management. Although the data is confidential, it is well known at the institutional level that Business contributes significantly to the university's enrolment income, from both domestic and international markets. In Australia, and more broadly, the contribution of business enrolments to university income is significant. While there is strong domestic demand, within the period of the renewal, there was also strong international demand related to the possibility of obtaining a Permanent Residency visa with a Business Degree. A project leader commented: "This is such a big program and brings in so much money, there was always that pressure on making sure it doesn't mess up."

4.2 Drivers of the "new" - Layers of interconnected practices

Within the strong discursive context of stasis, where were the drivers of the "new"?

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6 The discursive construction of "success" warrants a full discussion on its own, and will be dealt with in a separate paper.
Analysis of the texts suggested that the drivers of change existed at many layers of academic practice. Although my study initially focused primarily on the core project team and their activities, there were a number of references within the texts to influences outside the team. Where there were many references, from different texts, I explored these further, using my insider knowledge to follow a trail of connections. This led to a layered approach to interviews, and investigation of related texts produced at these three layers - the immediate project team, business school management, and university management. In addition, policy documents and reports on the Australian Higher Education sector were referred to.

The following example demonstrates the interconnectedness of these layers.

Although the school, and the university, were at that time in a healthy financial position, partly through good financial management and luck, management communications revealed concerns with uncertainty within the sector, volatility in the government funding of higher education, possible changes to funding relating to university performance against defined targets, and the potential of lower international student demand due to the GFC. Research shows that international student enrolment income subsidises many activities within the university sector, (Bradley, 2008).

At the University level, a new research-informed strategic plan covering the period 2009-2018 was developed and published. This included the statement relating to teaching and learning priorities: "Our competitive advantage is in the excellence of our teaching and relevance of our courses, our reputation for producing highly employable graduates, and our leadership in industry." In alignment with the strategic plan, performance objectives and financial resources were allocated.

At the project team layer, when participants were asked how they thought change had happened, many of the participants referred to a series of off-site residential retreats, which were attended by the project team and many faculty academics. These retreats provided space - physical space, time space, and an intellectual space - for the exploration of ideal and innovative approaches to curriculum, and it is through these retreats that in an open, creative, dialogic process, the radical transdisciplinary subject, and a more integrated approach to the program were collaboratively envisioned and planned. I attended these retreats, and the outcomes of these form part of the renewal document.

**Tensions between academic autonomy and unnoticed challenges**

The funding for these retreats was over $50,000, and was made available through a competitive grant scheme which was the responsibility of two senior institutional managers. One of these managers participated in an interview which shed light on the managerial influence on curriculum change. The manager referred to “sustainability” of change and, based on literature and experience, the difficulty in sustaining the change when the innovation was undertaken by individual academics. In order to embed sustainable change, curriculum renewal was aligned with the strategic plan, and large course-based grants were made available. In this interview the manager also acknowledged tensions between academic autonomy and demonstrated the need for the leadership of strategic change in response to trends and challenges which may be unnoticed by individual academics. Another senior manager commented on the tensions between academic autonomy and management objectives: “unilateral decisions are very rarely taken. Decisions are part of a broader consultation which always takes longer but the effect is that people buy into the result. Nothing is more important in a university where you can’t actually proceed by instruction. It’s not like any other organisation in society. If you proceed by way of instruction,

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2. A multi-million dollar investment had been transferred from the sharemarket to an interest bearing bank account, to fund a major capital works program just before the onset of the GFC
you will come a cropper, as many deans and vice chancellors (in other institutions) have over the years."

This example demonstrates the interconnectness of the layers of practice as noted by Gherardi (2006 p47). "a field of practices arises in the interwoven texture that connect practices to each other, and that the texture is held together by a certain number of practices which provide anchorage for others." Academics within the project team applied for the grant, with a proposal to use the funding in a way which they felt would be effective within the school. They were not obliged to apply and may have been unsuccessful. In this case, a strategic managerial initiative in one layer was transformed discursively through the interconnecting practices of teaching and learning grant funding into an act of creativity in another layer, underpinned by academic autonomy. After project completion, the team was recognized in the institutional teaching and learning awards process, managed by the same manager who had responsibility for the grant funding.

Importantly, in this study, these interconnections exist, and are recognized and developed by specific participants in the practice, but may also be unrecognized by others. Some academics were not aware that the funding for the retreats was sourced from an institutional budget, rather than the school budget. Even fewer would be aware that recognition of the value of the work on the project resulted in permanent changes to the documented the awards guidelines to specifically include contributions to curriculum renewal, in addition to contributions to teaching and learning.

It is also possible to consider the practice of curriculum renewal as relating explicitly to Bourdieu's representation of action within the social space or field, in this case the academic field. The action of grant application may be seen as a practical reaction within the academic field, with the potential to assist in the accumulation of academic capital. "It (The social space) is a relatively stable site of the coexistence of points of view, in the dual sense of positions in the distribution of capital (economic, information, social, etc.) and of the corresponding powers, but also of practical reactions to and representations of that space, produced from these points through habitus that are structured, and double informed, but the structure of the space and by the structures of the schemes of perception that are applied to it. (Bourdieu, 2000 p183).

At other layers, the interconnections are more explicit. Business School managers allocated funds to resource the project, agreed on documented terms of reference which specifically recognised the potential for stasis within the faculty, and indicated that the panel would be supported to go further than small changes to subject content and delivery. - "The review is not to be constrained by the way in which funds are currently allocated to deliver programs" (Internal Review Document, p21).

At the project team layer, academics and general staff worked in formal and informal settings, over 18 months. At various points in the process, the project was reviewed by Business School managers, and there were opportunities for consultation with academic staff, and other stakeholders. The renewed curriculum included research informed pedagogical and assessment approaches, competitive analysis, consultation process reports. The proposal was presented to the Business School Board and approved, almost without discussion, as staff had had many consultation opportunities earlier.

In interviews after the document approval, comments on the intention for significant structural/curriculum change, and an understanding of the structural barriers to change was demonstrated in these quotes from two different managers. "We wanted to - my role, I think, was to make sure that it just wasn’t a tweaking of existing curriculum and to facilitate discussions around a whole of program review versus a silo, discipline-based review." (Manager 1) and “It may be that student numbers will change a little bit from one discipline area to another, and we do have to take account of that in resource allocation. But the point

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8 For brevity, this paper cannot include the details of the project team’s activities, and this will be covered in a collaborative paper.
is to make decisions on a pedagogical basis - not on whether you’re advantaged or disadvantaged by resource allocation” (Manager 2). In short, the contribution at every institutional layer “mattered” in the success of the project.

4.3 International Accreditation - An internalised external layer
The school was accredited by an international business school accreditation association. It was, and is now, widely agreed amongst the business faculty members, that maintaining this accreditation enhances the reputation of the school, and this is in turn important for marketing purposes, and attracting enrolments from both domestic and international markets. Within the course curriculum, accreditation compliance required structural and micro-level changes - the mapping of graduate attributes, learning goals, and learning objectives into specific assessment items, in specific subjects so that student performance against the defined goals and objectives could be demonstrated. Discursive practices related to accreditation played a strong role in embedding change, as represented in subject descriptions, assessment type and requirements, and reporting processes.

4.4 Did the Global Financial Crisis Matter?
It might be expected that at this time, the GFC and discourses around the "evils of business and management education" would result in an instant desire for business academics to change the curriculum. One participant commented that he had attended an international meeting of Business School leaders who were making statements such as "Marx was right, it’s the collapse of capitalism". However, an immediate school-based movement to change the curriculum was not what occurred. Even after the new curriculum had been approved, the nature of the GFC and the culpability of business education was contested. During this time, Australia's economy had remained one of the strongest economies in the world. It was in the middle of a resources-led boom, had high levels of employment, and government policy had ensured that the country did not fall into recession. On an everyday basis, the GFC was not obvious. Interview participants were asked specifically about the role the GFC had played in the change project. Although some participants referred to the influence of the GFC in the project, others had a different focus, and saw the GFC as a minor consideration. Researcher: Anything about the global financial crisis or anything? Do you think that had any impact or not? Participant: Not that I’m aware of.

However, although the GFC itself might not have acted as a rallying call for change in curriculum and teaching practice amongst the faculty as a whole, the renewal project addressed and incorporated ideas and actions arising from the critiques of business practice and education. The GFC inspired members of the project team to review business education literature, and the few reports that became available about the GFC. Within popular media, there was a call for teaching ethics in business schools. International accreditation agencies foregrounded the need for incorporating ethics into curriculum. Reports of unemployed Harvard MBA's suggested that the Harvard influenced management degree may not be producing the type of graduates needed for the future. One participant in the Project team described the GFC “An excuse to try and drive a change”. Another stated: "That was the driver for change, I guess, more in terms of the ethics and doing things differently, thinking smarter, being multidisciplinary, not just being narrowly focused"

In effect, it appears that critical GFC discourses worked to provide a basis for conversation and creative approaches to change, without a need to agree that the “evils of business education” caused the GFC.

4.5 Money matters
It is unsurprising - especially for a business school - that there is a significant financial discourse throughout all the texts. Hours of competitive analysis, and analysis of the admissions data resulted in more than 20 pages of the final document. However, within the school itself, an underpinning financial discourse was evident in many subtle ways.
Students as consumers of the education product, and skilled graduate employees

Students are represented in the texts in many different forms. Various words refer to the students, - "students", "graduates". and in some cases students are constructed as potential consumer of the business school's product, "enrolments", "course demand". Often this is implied, rather than stated, with proxies used to denote this meaning. Students are referred to as the object of education, "provide graduates with a broad knowledge of the business disciplines and their interconnectedness", and with the technical skills required for their chosen profession." Employability was a dominant discourse:

Academics noted that income for the whole program was important, and within the reports of the consultancy/review processes, academics and academic leaders responded with input on the financial implications for the school's various discipline groups, and possible impacts on staffing and research endeavours. A senior manager summed up these dual considerations supporting the finding that business school curriculum in this case is as much about the organization as it is about the student experience: "this is about what will be best for the students and for the business school as a whole."

5. Where is the student with two, or two billion, brains, the bionic student, the borderless student?

The emphasis in this paper has been on the discourses which were evident in the data. While current students were represented within the data, and curriculum changes were made incorporating outcomes from recent higher education research on teaching, learning, and assessment, there was little evidence of a conception of future students. Some students who will complete the new degree are in their early teenage years, have never known a world without internet, and have been babysat by iPads. Many current secondary school children may already have global connections maintained though social media such as Facebook. Potential students have access to all the published knowledge of the world, and to some extent are even unlimited by foreign languages through the availability of free online translators - imperfect now, but not for long. Voice-to-text and text to voice is available either for no charge, or very cheaply, through phones and other mobile devices. The trends in technology have created a new "species" of student - a "singularity" of human and machine. (Silva) or the potential "bionic" student. Recently, After attending a talk by futurist Jason Silva, a sixteen year old family friend asked, "So if we are already the singularity, why can't we take our computers and iPads into our exams?" Why not, indeed...

Madeleine Grumet (1988) provides this apparently straightforward definition of curriculum- "Curriculum is what the older generation chooses to tell the younger generation." Here, the generational nature of curriculum is foregrounded, and the values laden nature of the definition is evident. When we consider curriculum in 2013, and into the future, the validity and authority of knowledge and its modes of transmission, (Bernstein 1975) may need to be called into question. In 1978, Apple (1978) noted that the focus on curriculum has been on the "measures of the acquisition of information, propensities, skills, and dispositions and the effect of such acquisition on later life". He suggests that in questions of curriculum the focus should be on "the prior set of questions to those usually asked about school success and failure… Whose knowledge is it? Why is it being taught to this particular group, in this particular way?" Although we are now in a technological world which most would not have envisioned at that time, the same question remain. It is also likely that the full and future impact of the availability, affordability, and ubiquity of these new technologies is unnoticed by many academics. In the US, moves to force academics to "conform" to new modes of education such as MOOCs are meeting with resistance. This study suggests that changes to higher education curriculum which incorporate new technologies and new modes of knowledge and transmission will require very complex approaches to change within all layers of the institution - and externally.

6. Conclusion and Implications

6.1 Curriculum as layers of practice

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My study demonstrates that in this case higher education curriculum renewal is indeed a "extraordinarily complicated conversation" and that "human agency and the volitional character of human action" (Pinar, 1999) are critical considerations in Higher Education. This study also demonstrates the layered nature of the discursive practices at many managerial and operation levels of the institution, and that the discursive connections between the layers, may sometimes be obvious, and sometimes non-obvious. Importantly, in this case the practices appeared to influence the social spaces in which the academics worked, and created a discursive practice where "practical reactions" of the staff involved contributed to a successful curriculum renewal process. When presented with the difficult and we could even say "wicked" problem of curriculum innovation, smart people, when provided with the necessary resources and required spaces in time and space to explore - will innovate.

6.2 The process of researching curriculum practice matters…

Clearly, both the concept of higher education curriculum, and the practice of higher education curriculum are laden with complexities. This study, and the work of others, suggests that these complexities are worthy of further exploration from both the research and practice perspective. My own analysis, and reflection on my own practice, has enabled me to contribute more effectively to curriculum change in my everyday academic practice, to challenge orthodoxies and to feel confident to introduce new discourses into the process, - for example new conceptions of young learners, as "bionic". The process of curriculum renewal tends to generate significant documentation which may lend itself to discourse analysis approaches. Various theories of practice such as those of Gherardi and Bourdieu may be useful starting points.

While PhD study is a special case, and imposes requirements for approaches which are both feasible and ethical for an individual researcher, the often collaborative nature of curriculum renewal creates many opportunities for collaborative, and possibly more extensive research with larger datasets. As curriculum renewal practice is imbued with contestation and tensions between various discursive practices, I suggest that the possibility of researching the practice is best raised at the outset of the project with the project team, participant review processes agreed, and ethics approval obtained. The data that is produced through the process is likely to provide insights, which would not be evident from an evaluative analysis undertaken after the project.

Acknowledgement:

I would like to thank my PhD supervisor, Professor Lesley Farrell who has offered valuable insights.

References

Ghoshal, S (2005) Bad Management Theories are Destroying Good Management, Academy of Management Learning and Education, vol 4, no 1, pp75-91
Grumet, M (1988) *Bitter Milk. Women and Teaching* University of Massechusetts Press, USA
Silva, J (2012) *We are the gods now - Jason Silva at the Sydney Opera House* available at: [www.youtube.com/watch?v=PjpC6GmeLG1](http://www.youtube.com/watch?v=PjpC6GmeLG1) (last accessed 3 May 2013)
Empowering Students

Using Student Conversations about Learning and Teaching to Surface Troublesome Knowledge about the HE Classroom

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Abstract
The widening participation (WP) policy agenda has raised questions about pedagogies in higher education (HE) and the ways they might be further developed to address issues of inclusion, participation and diversity. Enhancement activity also calls for certain types of engagement which may exclude some students or be based on assumptions about the student experience. There have been calls for nuanced research that draws out the complexities of learner identities and pedagogical experiences (Burke and Jackson, 2007; Leathwood and Read, 2009). In addition bodies such as the National Union of Students (NUS) have called for more support for academic staff to review and develop inclusive practice and for students to better understand HE pedagogic relations (HEA/Guardian Debate 2012).

Introduction
The Higher Education Academy funded NTFS research project 'Formations of Gender and Higher Education Pedagogies (GaP) took place at 'Riverside University' 2010-2012. Its aim was to develop a detailed understanding of the relationship between social identities, and pedagogical practices and experiences. Another was to extend the focus of educational development to consider teaching and learning identities, relations, contexts and positions. Participatory methodology (Burke 2009) was at the heart of the GaP Project. This comprised, amongst other methods, 64 in-depth individual undergraduate student interviews across six programmes; 10 student focus groups; 15 focus groups with the academic staff who taught these students; workshops with invited students from a range of higher education institutions and a national workshop with academic staff. This methodology ensured very rich data on the University experience, from both staff and student perspectives. The data was used further to generate discussion and reflection amongst staff about inclusive pedagogic practice and the extent to which they are able to respond to the range of identities in the HE classroom. These discussions resulted in deep reflection on practice, were highly appreciated by staff and led some teams to reconsider their practice. Underlying assumptions about student engagement were particularly troubled. Most importantly this highlighted a disjuncture between the pedagogic intentions of staff and the ways in which the learning environment was experienced by the students they were teaching. For example before hearing the student views many staff described students as passive and disengaged, somehow different from students ‘in the past’ who were more aware of what university required. Students however told us they were often bored and they were rarely invited to engage in meaningful discussions or raise issues and ideas a ways which felt ‘safe’. The research team, made up of academics and educational developers are exploring ways in which these kinds of conversations can become an integral part of solving teaching problems reframed as an intellectual active process that moves people beyond fixed identities, official discourse and subjective notions of ‘the academic role’. This conversational framework has echoes in Kandbinder's (2007) term 'deliberation'. He describes it as demanding a form of communication that is different from everyday conversations. Mann (2005) describes deliberation in relation to on line communities as 'opening up possibilities for expression, seeking understanding, making explicit norms and assumptions in order to question and configure them more appropriately, getting to know the other, checking out different experiences, needs and purposes, voicing different experiences , histories and positions and having these accounts heard.'
Troubling ideas around engagement in the HE classroom
The quotations from students have encouraged some academic staff to confront their conceptions of teaching and the kind of learning approaches which are privileged or assumed alongside the tacit knowledge believed to be common amongst the teaching team. Like Boaler and Greeno (2000) they came to consider the extent to which the learning environments they were creating, were determining the development of student identities as learners. Discussions arising from reflection on the student quotations helped illuminate underlying feelings about agency (Fanghanel 2007) and issues of power, room to manoeuvre, disciplinary traditions and surveillance.

Interestingly, some quotations seemed to provide what Meyer and Land (2003) have termed threshold concepts or troublesome knowledge in a more powerful way than other educational development strategies. A threshold concept can be seen as a portal, opening up a new and previously inaccessible way of thinking. It represents a transformed way of understanding, or interpreting, or viewing something without which the learner cannot progress. As a consequence of taking on a threshold concept there may thus be a transformed internal view of subject matter, subject landscape, or even world view. Examples of transformed interpretations which emerged through the project included those relating to silence in the seminar room, boredom during lectures, assessment methods and curricula

Troublesome knowledge is explained as knowledge that is 'alien', or counter-intuitive or even intellectually absurd at face value. Examples of troublesome knowledge include those linked to power, fear and space in the classroom, opportunities to engage in a meaningful way, the kinds of learner identities which are assumed, privileged or marginalised by particular pedagogic practices, academic identities (or that part which dominates) and the consequences of mis-reading each other, the extent to which students are encouraged to determine pace of learning, content and assessment.

Participative methodology is by its very nature dialogic. Colleagues from across the institution trusted the research team with very personal reflections on aspects of their professional role and discussed issues openly and without reservation. It was therefore incumbent on us to ensure that data were not used in any way that could be undermining or threatening and that it was presented to other staff and to students in such a way as to remain meaningful, whilst respecting confidentiality and anonymity.
Equally, the students have raised many very interesting points, particularly for an educational development unit. In using the data as resource material and as a lever for change, we have had to be aware that data were collected as part of a specific research project, making wider use problematic. At the same time, the students have been very forthcoming and open in their observations and it is incumbent on us to show them that their views have been listened to and acted upon, thereby closing the feedback loop and demonstrating impact. Failure to do this, suggests that candid participation in such projects does not result in change.
Another important sensitivity is the extent to which colleagues welcome student views on the efficacy and suitability of the pedagogic practices they have experienced. Whilst acknowledging that students have significant and varied experiences of learning in different sectors and will doubtless have preferences with regards to the teaching style they most appreciate, many have come from educational regimes that are very different from those at university. Whilst recognising the importance of the student voice, there is, therefore, the question of whether raw experience is a valid measure of the quality of learning and teaching. This raises the issue of meeting expectations, clarifying and explaining practices and embracing flexibility and difference.
A final ethical issue is that of imposing interpretations on the analysis of the data. An example of this is the notion of 'students as consumers'; a lens regularly used by the academic staff in the project but rarely articulated by the students themselves. Relatively few
students alluded overtly to the fact that they are funding their studies and positioned themselves as customer or consumer and yet this discourse did permeate focus groups with staff.

Practically, recruitment of the students initially seemed very straightforward: members of the GaP team explained the project to Year 2 students in teaching sessions and this engendered a significant level of interest. Establishing dates for interviews was, however, more problematic, especially as the term progressed and other, important aspects of university life were prioritised. Recruiting an even number of male and female students made this even more difficult, because of an under-recruitment of male students. Because of a shortfall in terms of numbers, students were recruited from the pool of student representatives. This was very effective, but meant that the sample became somewhat unrepresentative, including a high number of particularly engaged students. When drawing conclusions this has had to be borne in mind.

There was genuine interest amongst the academic colleagues taking part in the project and, more surprisingly still, in being observed whilst teaching. Taking part in a research project about pedagogic practice repositioned teaching concerns and challenges as intellectual work (Hutchings, 2002). Staff very much valued having the space and time in which to talk about teaching and their experiences of working with the students. Reflective dialogue was particularly rich in those sessions where academic staff were ‘troubled’ by powerful and insightful student quotes and conversations regularly centred around ‘how likely are students to say this about me or our course?’

Troublesome student views
I'm picking my modules specifically because of the lecturers. It makes a massive difference. I've already decided what I am taking next year. The teaching of the lecturer is more important often than what the content is because a good lecturer can make a dull subject interesting. A bad lecturer can make an interesting subject dull. So it's really important how they teach and whether you get on with them.

In the first year you were given so much help like borderline spoon-fed and in the second year they took it all away so you had no help, no support, nothing. You were just left to try and find…. anyone you could find to help you were like 'oh thank God.' The first year was like school and then to have it taken away when in really mattered, starting counting towards your degree was very hard. That was when I started thinking, 'I don't know what I am doing here anymore.'

Some say they want discussion but they stand there 'we are the lecturer' and if you critique something you get a steely eyed stare and complete 'no way' and it's almost too frightening. We can't really say anything we feel and so there is just silence. Do they know it's easier to learn if you are arguing from your own point of view rather than being read out somebody else's ideas?

Sometimes the seminars are lecturey seminars so it's like they do a lecture and then split the group up but it's like they don't have much time. She was like blah blah de blah and she had so much in her presentation and so many points and she was just basically reading them at us very fast and then not saying just adding more stuff on and it just goes completely over your head and you don't learn anything.

To conclude, the participatory methodology at the heart of the GaP Project enabled the sharing of students' and academics' views in a safe and supportive environment, allowing each group to examine the other’s experiences of pedagogic practices in a dialogic context for which there is usually little opportunity. The use of direct quotations from the focus groups with academic staff and students provided a powerful means of facilitating dialogue and troubling long-held conceptions about pedagogic practices, enabling the research team to act as a 'context provider' rather than a 'content provider', creating reflexive space for the problematizing of pedagogic concepts. This form of professional development can be described as the creative orchestration of collaborative conversations (Burke et al, 2013) engendering a richness not usually found in the more usual staff development events.

Bibliography


HEA /Guardian Debate (April 2012) http://www.guardian.co.uk/higher-education-network/higher-education-network-blog/2012/apr/17/guardian-roundtable-higher-education-academy accessed 7.5.13


Meyer J H F and Land R 2003 'Threshold Concepts and Troublesome Knowledge 1 - Linkages to Ways of Thinking and Practising' in Improving Student Learning - Ten Years On. C.Rust (Ed), OCSLD, Oxford

Researching under-represented groups: how to empower students through targeted learning development support

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ABSTRACT: The Scottish Government has tasked Higher Education Institutions with improving the recruitment, retention and progression of students who are classified as living within the lowest deprivation quintile according to the Scottish Index of Multiple Deprivation (Scottish Government, 2012). The Scottish Funding Council allocates ringfenced funding for this purpose and negotiates specific outcome agreements with each institution to measure and evaluate success. As an initiative funded in this way, the School of Health and Life Science's Learning Development Centre (LDC) at Glasgow Caledonian University is required to support students from low participation postcodes.

The LDC provides enhancement-led, learning support to all students in the School through a blend of timetabled, in-programme teaching, workshops and one to one appointments. Support for, and monitoring of, those identified as belonging to the 'multiple deprivations' category (MD20s), however, is becoming an increasing priority. Whilst clearly a desirable aim in terms of social justice and widening participation, it is less obvious how best to target and measure support. The risks of stigmatising, alienating or even creating dependency amongst what is surely a heterogeneous group are manifold.

This paper will report on research conducted by the LDC members that attempted to better understand the diverse group of 'MD20 students' who attend, or potentially attend programmes within the School. The aim of the project was to provide an evidence-base on which further support activities could be built. Cognisant of the diversity of the group in question and the risk of labelling or categorising students, the project employed a narrative or biographical approach which aimed to capture and explore the individual life histories of students (Field, Merrill & West, 2012). In particular, it investigated the paths their lives had taken to lead them to study at university, how they felt about the MD20 focus and what kind of support, if any, would empower them to succeed in their studies. Alongside in-depth, qualitative exploration of the issues, academic performance and baseline demographic data were collected to gather as full a picture as possible of the group in question.

Introduction

As a result of the economic downturn, The Scottish Funding Council (SFC) has taken an 'outcomes based approach' to funding post-compulsory education for the period 2012-2015 (SFC, 2012a). Eight outcomes have been identified including efficient and effective college structures, an internationally competitive research base and, most importantly for this project, 'access for people from the widest possible range of backgrounds'. Each Higher Education Institution (HEI) in Scotland must, in negotiation with the SFC, outline how it will meet these outcomes based on their strategic planning, demographics, strengths etc.

The SFC measures access using the Scottish Index of Multiple Deprivation (SIMD), although HEIs are encouraged to use this alongside any other measures of deprivation that they feel would allow them to evaluate success. This is a system by which the Scottish Government divides the country into 'datazones' and ranks the level of deprivation in each area based on a comparison of 38 indicators, involving domains such as income, employment, health and education (Scottish Government, 2012). The datazones are ranked from 1 (most deprived) to 6505 (least deprived), with each area or postcode consisting of approximately 800 people. The information is used to target policy and funding to specific areas. The Index is usually described in terms of centiles, with those postcodes in the lowest fifth representing the areas experiencing the greatest deprivation (known as MD20). Glasgow City has a disproportionate share of those living within Scotland's most deprived areas. 26% of the country's MD20 population live within the city limits. Glasgow also lays claim to 45% of the Scottish population living within the lowest 5 centiles of the deprivation index.
As a new university that prides itself on a reputation for widening participation (GCU, 2013), Glasgow Caledonian University (GCU) receives substantial funding under the SFC’s ‘access’ outcome. The recruitment and retention of students from under-represented groups, including those residing in MD20 postcodes, is a key institutional priority. Part of this funding is directed into each of the three Academic Schools’ Learning Development Centres (LDCs). Although each LDC operates differently, based on the School’s specific programmes and student populations, they all provide learning development support with a view to improving progression and retention of all students. How best to support MD20 students and whether current activities and services are used by this particular group remains little understood, however. The LDC in the School of Health and Life Sciences set out to explore these issues.

Views from policy and research

Whilst there may be consensus on the need to widen access to higher education and support those who undertake learning at that level, how this is best achieved remains a matter of some debate, at policy, institutional and research level. GCU’s 2013/2014 Outcome Agreement focusses on ‘inclusivity’ rather than specific provision or support for target groups: ‘Our new Strategy for Learning enshrines our aim to continue to improve on progression, retention and completion for all our students’. Such an approach is supported by the findings of ‘What works?’ a recent, large-scale Higher Education Funding Council for England (HEFCE) funded project (Thomas, 2012). It suggested that, whilst general activities can be supplemented by targeted support, nurturing a sense of belonging amongst students is key to retention and success. Any approach should, therefore, be mainstream and ‘opt-out’ - an embedded aspect of HE that encourages collaborative working between staff and students and support before crises occur.

Some researchers have challenged prevailing notions of widening participation, perhaps signifying that mainstream support is preferable to specific provision. Williams (2011), for example, has argued that the language of former government policy may have resulted in ‘psychological disadvantage’ amongst those categorised as ‘socially excluded’; the ubiquity of the term ‘support’ implying a vulnerable, infantilised group. Leathwood and Hey (2009) similarly suggest that strategies targeting ‘non-traditional’ students are constructed in terms of a deficit, one which seeks to change the student. Yet, whilst there are undoubtedly difficulties with such a problematising discourse, it seems clear that those who enter HE from non-traditional backgrounds—mature learners, those from socially deprived neighbourhoods etc—experience particular challenges. They may have less access to physical and emotional resources and fewer academic role models, suggesting that specific forms of support are fundamental to social inclusion (Benson et al, 2012). Pampaka et al (2012) argue that there is no single dominant factor for learners from lower socio-economic backgrounds, yet such students have a wider range of issues than ‘higher social class’ students.

The SFC’s outcomes approach seems to suggest they favour targeted interventions and specific targets. It is certainly possible that purely mainstream activities may fail to engage certain groups of learners. The vast majority of the LDC’s funding is derived from SFC access monies provided to GCU. There is thus a moral, financial and politically expedient need to attend to the issue of MD20 students at the very least. There is evidence that strategies which aim to improve access and support for specific groups can be successful. Institutional interventions and monitoring, championed and supported by Buttle UK (2012), have resulted in significant improvements in the recruitment and retention of Care Leavers, for example. The very fact that Buttle UK collates information on care leavers in HE has allowed for the evidenced recognition that such young people were hugely unrepresented in education. This focused attention has, according to Buttle UK, ‘enabled institutions to consider the needs of Care Leavers as distinct from other vulnerable groups’ (2012, p8).
MD20 students are clearly a very different group from Care Leavers, but this example demonstrates that the needs of certain learners can remain unacknowledged unless their experiences are monitored and evaluated.

The project

3.1 Aims and objectives

It is evident an array of drivers, research findings and policy objectives impact on the issue of recruiting and retaining students resident in postcodes identified as experiencing multiple deprivations. The LDC provides enhancement-led, learning support to all students in the School through a blend of timetabled, in-programme teaching, workshops and one to one appointments (Mckendry, 2012). Support for, and monitoring of, those identified as belonging to the 'multiple deprivations' category, however, is becoming an increasing priority. Though a worthy goal, it is essential such support is considered, research-informed and eliminates or minimises any potential stigma associated with postcode ranking. Up to now, the voices and views of one of the most significant stakeholders involved, namely the students themselves, can often appear largely absent from the debate. As a team, we thus sought to provide an evidence-base on which further learning development support could be established.

The overall aim of the project was to improve understanding of the learning and teaching needs and experiences of the diverse group of MD20 students who attend, or potentially attend, programmes within the School of Health and Life Sciences. A number of objectives were identified:

To use a narrative or biographical approach to capture individual life histories and student journeys from within the wider, diverse MD20 group (Field, Merrill & West, 2012).
To explore the student experience and learning development needs of those entering higher education from under-represented groups.
To employ qualitative instruments to gather data on whether, and in what ways, students within the MD20 category engage with LDC support.
To understand the institutional policy and wider funding context of MD20 recruitment, retention and support.

3.2 Methodology

An inquiry/interpretative based approach provided the methodological foundation for the project. In particular, student data collection harnessed narrative, life story methods aimed at exploring individual biographical narratives: the paths their lives have taken to lead them to study at university; how they feel about the MD20 focus and what kind of support, if any, will allow them to succeed in their studies. As researchers, we aimed to situate the project within the growing body of literature on adult transitions and lifelong learning (Field, Gallagher Ingram, 2009) using biographical or life history research as 'an important and powerful way of seeing learning as a fundamental dimension of living' (Field, Merrill & West, 2012, p. 80).

Such a particularist method can potentially suffer from what Field et al (2012) label 'excessive methodological individualism': stories are embedded in specific circumstances and habitus (Bourdieu, 1984) and influenced or conditioned by the dialogue between narrator and researcher. The potential for generalisability or extrapolation are limited. Yet the approach allows for the collection of rich data and is mitigated by other mixed methods. These, though primarily qualitative in nature, allow for the widest possible collection of relevant data and the greatest scope to iteratively develop further cycles of research. The project thus involved documentary examination of policy data, performance and retention monitoring and the tracking of LDC usage data. The analysis of the mixed data drew on
indicators from social and cultural capital to help understand the various perspectives of the students and gain in depth knowledge of the student population and its issues.

Ethical approval for the project was sought and granted by the School's Research Ethics Committee.

3.3 Research phases

The project consisted of several research phrases:

Statistical analysis of performance and progression data and LDC data, documentary and policy audit.
Semi-structured interviews with students currently studying in the School who live within the MD20 residential category.
Semi-structured interviews with staff members with a role in recruiting, retaining and supporting students from MD20 backgrounds.
Semi-structured interviews with college students considering studying in the School who live within the MD20 residential category.

At the time of writing, phases one and two are near to completion with phases three and four planned for the next few months.

Phase 1: quantitative data collection and analysis

4.1 Profile of MD20 students in the School

MD20 students are identified from within the broader population of full-time, Scottish-domiciled students. Such a measurement inevitably excludes other categories of students, many of whom may also reside in, or come from, MD20 areas or their equivalent in other parts of the UK. Part-time, postgraduate and international students and those moving from the rest of the UK are not included. For academic year 2012/2013, 19% of the School's full-time, undergraduate, Scottish-domiciled student population lived within an MD20 area according to the university's records. For new students entering the School, this figure rises to 25%. The School recruits a greater percentage of students from these areas than other institutions. SFC (2012a) research suggests that the MD20 group accounted for 14% of the total university population in Scotland in 2010/11, and represented 11% of the population at Scottish old universities.

Since this was such a significant proportion of full-time students, institutional data was further explored to try to determine the broader demographic profile of the group.

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<th>students in School of Health and Life Sciences, 2012/13</th>
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<th>Age profile of MD20 students, 2012/2013</th>
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According to the Higher Education Statistics Agency (HESA, 2013), mature students are defined as those who are aged 21 or over on commencing their course. 85% of students in the School’s MD20 group fall into this category, 50% are over 25 years of age and 24% are over 30.

Over half of the MD20 students (56%) were undertaking nursing degrees and a further 11% were enrolled in Psychology. Further work is required to explore the ethnicity and gender breakdown of the MD20 group. In addition, details on the percentage declaring a disability and the number entering university through FE would also be useful. Such characteristics are often used as part of a ‘basket of measures’ when targeting access (SFC, 2012a). Comparison with students in the least deprived centile (LD20) may also prove useful and will be undertaken in the future.

4.2 Usage of Learning Development Centre by MD20 students

The LDC follows an opt-out model of learning development support. Tailored, module-specific learning and teaching is delivered within classes ensuring all students receive academic skills development. Further ‘opt-in’ support is available however, and accounts for a significant proportion of the LDC’s activities. Students can sign up for workshops or request an individual or small group appointment with a lecturer to discuss an academic skills issue. Attendance at both workshops and appointments was tracked for trimester one and two of the current academic year in order to determine overall and MD20 usage. As the charts below show, MD20 students made up 19% of the School’s population and accounted for 26% and 22% of workshop attendance in trimester 1 and 2 respectively. MD20 students would thus appear to be opting to attend extra-curricular activities in greater numbers than expected.
Similarly, whilst MD20 students represent 19% of the total School population, they accounted for 20% and 25% of the LDCs individual appointments in trimester 1 and 2.

Once again, students from the MD20 category appear to be accessing the LDC at a proportionally high rate - they account for a greater portion of the LDC’s activities than they constitute as a portion of the total undergraduate, full-time population.

4.3 Retention and progression data: is there a problem?

Initial exploration of LDC usage statistics appears reassuring and possibly suggests that current activities and publicity approaches are effective in attracting students from all groups, including those with MD20 backgrounds. Further work is required to examine if LDC support is effective, however, and a number of questions remain. What impact does engagement with the LDC have on retention and progression, for example, and is it possible to measure that impact? Also, a percentage of MD20 students in the School are accessing support but what of those who do not? It may be that they will engage in later years and at a time when they need it. It may be that they do not require academic skills support outwith their timetabled provision. The MD20 category is now being considered in the collation of institutional retention and progression data, thus some answers may be forthcoming in the near future. One of the key issues is whether MD20 students are as academically successful as their peers.

There are some indications that students from MD20 backgrounds are more vulnerable to academic failure or withdrawal than other students. The National Union of Students Scotland (NNUS, 2011) compared retention rates of MD20 students and the total full-time, Scottish domiciled student population. Although somewhat dated, this research suggested that rates were continually lower for those from the bottom centile.
More recent research from England highlights similar findings. The Leaving University Early research report (John-Adams, 2013), funded by HEFCE and conducted under the auspices of the Open University (OU) and the Universities and College Admissions Service (UCAS), drew on data from more than 35,000 early leavers over the period 2006-2012. Key findings suggest that 'non-traditional' students are more likely to be early leavers than 'traditional' younger students. The former category included mature learners, those from neighbourhoods with low HE participation and those entering from FE. Several of these characteristics appear to coalesce with what we know of MD20 students in our School. There is also evidence that non-continuation is highest amongst mature students (SFC, 2012a). Given the age profile of MD20 students it is imperative that longitudinal monitoring of retention and progression is conducted with MD20 status as an additional identified characteristic. This work is now being undertaken and will inform further stages of the research.

Phase 2: semi structured interviews with students

5.1 The interview process

In February 2013 an email invitation was sent to all students in the School who had been identified as living within an MD20 postcode. Eleven students responded and it proved possible to conduct interviews with nine of them. The table below outlines the profile of each interviewee. Although a convenience sample, they are nonetheless broadly representative of both the School population and the smaller MD20 category of students.

<table>
<thead>
<tr>
<th>Code</th>
<th>Age</th>
<th>Year</th>
<th>Programme of study</th>
<th>Route to university</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>18</td>
<td>1</td>
<td>Psychology &amp; interactive entertainment</td>
<td>Secondary school</td>
</tr>
<tr>
<td>2</td>
<td>49</td>
<td>1</td>
<td>Learning Disability Nursing</td>
<td>FE Access course</td>
</tr>
<tr>
<td>3</td>
<td>19</td>
<td>2</td>
<td>Psychology</td>
<td>Transferred from other HEI</td>
</tr>
<tr>
<td>4</td>
<td>35</td>
<td>3</td>
<td>Biomedical Science</td>
<td>Direct entry from FE (HND)</td>
</tr>
<tr>
<td>5</td>
<td>32</td>
<td>1</td>
<td>Social Work</td>
<td>FE Access course</td>
</tr>
<tr>
<td>6</td>
<td>33</td>
<td>1</td>
<td>Adult Nursing</td>
<td>FE Access course</td>
</tr>
<tr>
<td>7</td>
<td>36</td>
<td>1</td>
<td>Adult Nursing</td>
<td>FE Access course</td>
</tr>
<tr>
<td>8</td>
<td>36</td>
<td>1</td>
<td>Adult Nursing</td>
<td>HNC &amp; FE Access Course</td>
</tr>
<tr>
<td>9</td>
<td>19</td>
<td>1</td>
<td>Diagnostic Imaging</td>
<td>HNC</td>
</tr>
</tbody>
</table>
Given the narrative methodology, semi-structured interviews were designed to unearth life journeys and biographies, to encourage participants to reflect upon and discuss their life path. Open ended questions were used and there was very little prompting. All four members of the project team conducted interviews after extensive discussion and planning. Time was spent between each, listening through recordings to develop a similar interview technique. Questions included 'Tell me about how you came to be studying here' and 'do you think that coming from an MD20 postcode has played a role in your life?'.

5.2 Coding and initial thematic analysis

Following verbatim transcription, each member of the research team coded the data individually before coming together to discuss emergent categories and themes. The richness of the data suggests that further analysis and theory generation is both possible and warranted and will be undertaken in the next few months using a grounded theory approach (Glaser & Strauss, 1967). Initial themes and sub-categories have been detailed in the mindmap below.

Thematic collation of the data has proven fruitful yet such an approach inevitably searches for similarities, patterns and differences between experiences. This does not necessarily allow for the illumination of individual student journeys and biographies. A case study approach has, thus, been an additional aspect of data analysis and will be completed shortly.

What's next

The MD20 category has proven useful in building understanding of the student profile and as a tool to monitor usage of the LDC and evaluate our reach. It is imperative that we determine the respective performance rates of the MD20 group and the general student population. Where there are differences, the LDC may need to adopt strategies specific to that group, though this does not appear necessary or fruitful at this point. The institution has a duty to ensure that those students who enroll on programmes are supported in the attainment of their degrees. If particular students are more vulnerable to academic difficulties, greater support may be necessary.
The identification of the MD20 category amongst students provoked discussion, anxiety and even some anger amongst participants in the project. Some students viewed the category as potentially stigmatising for example, and the group is as diverse as anticipated. Whilst it was never our intention to produce publicity materials or activities for that group alone, it appears that any targeting of support in this way may be counterproductive. The project has made clear that there are other categories or identities that could prove more useful when considering targeted support—mature learners, articulating students, those entering from FE, care-leavers and carers. These groups are often over-represented within the MD20 category and can face additional challenges in negotiating HE. Students also seem to more comfortably identify with these labels and may thus more readily engage with activities aimed at them.

These remain tentative conclusions, however. The project has a number of phases still to be completed. Staff interviews will be conducted over summer, and potential college students have already been identified. Further longitudinal tracking of MD20 student usage of the LDC and general progression will also continue.

References


Transformative Student Engagement through Courageous Conversations

Lynette Ireland and Sharon Moore
James Cook University

ABSTRACT:
This paper highlights how to enact transformative pedagogy to embed cultural frameworks into higher education that are innovative, sustained and valued by diverse student cohorts, the academy and the Indigenous community. Our teaching centrally places students at the heart of the experience, embracing challenging racial issues in supportive and inspiring ways through 'courageous conversations' and, in the process, motivating students to learn when discerning and engaging with the Australian cultural landscape. The overarching pedagogy, utilising an interactive delivery jointly facilitated by Sharon Moore, an Indigenous lecturer and Lynette Ireland, a non-Indigenous lecturer, centers on inclusivity within this cultural interface.

1 Introduction

The Australian cultural landscape is still a contested site. Australian Indigenous peoples, specifically, the Aboriginal and Torres Strait Islander peoples, are often rendered invisible, marginalized, exoticised, exalted or are simply considered as 'the other' by the dominant mainstream Australian society. The notion of reconciliation is too often considered a panacea to the cultural pluralism that exists and does not actually achieve its own intents of recognizing and valuing Indigenous cultures and peoples. In fact, embedding Indigenous perspectives into the curriculum is difficult; the contentions, sensitivities, protocols, racialised imaginings and resistances to change are all fraught with complications. Altogether, these elements compound and confound the issue of reconciliation and thus teaching within higher education. However, in a regional University - James Cook (JCU), both (a) a commitment to achieving "genuine and sustainable reconciliation between Aboriginal and Torres Strait Islander peoples and the wider community" (University Plan), and (b) an implementation of strategies to engage in pedagogies where this will occur, has become a reality.

Our first year subject, Linking Indigenousness, exemplifies an actualised plan and best practice where reconciliation and thus attitudinal moves can occur in powerful, positive ways. Our pedagogies not only reflect Aboriginal and Torres Strait Islander epistemologies and ontologies, but also draw upon the worldviews of our diverse student cohort. An interactive delivery jointly facilitated by Sharon Moore, an Aboriginal lecturer, and Lynette Ireland, a non-Aboriginal lecturer, aims to engage students by utilising innovative approaches through the creation of a safe space for cultural interactions. This space reflects the notion of the Cultural Interface (Nakata, 2002), where cultural crossings, encounters, and convergences happen. However, despite political and often conflicting discourses in play within this space, we contend that it also offers reconciling dynamics if we consider the individual in the mix. Our central tenet therefore places all students at the heart of our subject. Our belief is that if students can connect with the subject matter via the human element of our offered stories, then they are more likely to willingly traverse difficult topics imbued with sensitive racial issues. We had to deepen the dialogue with them not to them. Therefore the pedagogies we adopt are intentionally inclusive and respectful of all. In this manner, we encourage our students to become active agents of change fostering possibilities for cultural transformations to occur. This is clearly demonstrated via both (a) qualitative (individual exemplars) and (b) quantitative (statistical) data, included throughout this paper. Overall, as the evidence testifies, the experience of actively engaging in the Cultural Interface is a worthwhile and empowering one. As National Citation winners for Excellence in Teaching and Learning for this program in 2012, it seems that the Australian Academy does as well. The overwhelmingly positive feedback on our pedagogical
approaches indicate that we are on the 'right track', taking our students with us into the challenging, yet inspiring space that comprises the Cultural Interface.

2 The Cultural Interface

The theoretical space and actualised place where different cultures meet in cross passages is referred to as the Cultural Interface. This 'space' of interface exists at the conjecture of cultural crossings where cultural entities interact. In Australia for this subject, it predominantly, but not exclusively, focuses on the mix between Indigenous and non-Indigenous Australians. This space represents an intermingled construction representing all cultures, a 'third' space as it were, as suggested by Routledge (1996). These third space interactions are neither straightforward nor homogenised; rather they represent a tangled mass of interchangeable, fluid movement between different cultural agents who engender a vast array of historical, political and spiritual schemas suggesting multiple, ideological positions. This then infers complexities, tensions, possible misunderstandings and miscommunications, ignorance and resistance. Added to this is the internal interplay with the prevailing socio-political climate to consider. Altogether then this space presents as a potential plethora of pitfalls. Our intent, however, is to neither invalidate nor undermine Indigenous or Western cultures, knowledges or peoples. For as much as the interlacing of these various layers produce discordant dichotomies, these also comprise reconciling dynamics. Therefore these connections can actually work to produce cohesive, consensual and co-operative social practices as long as these cultural interactions are undertaken in a respectful manner. Rather we aim to identify the cultural, political, social and economic variants in the mix that influences and positions these interactions to simply make the individuals and their epistemological and ontological perspectives more relatable. In the higher education sector this is not easy, because as Cowlishaw (2006, p. 432) contends "it seems that the majority of Australians have neither seen or heard Indigenous people and are quite unfamiliar with their social worlds." Therefore, within our teaching/learning space, "...we are faced with both the challenge as well as the opportunity of actively rethinking modes for human interaction and recasting the difference that difference makes" (Gaztambide-Fernandez, 2012, p. 42). So, with this in mind, we reviewed and then re-designed what our pedagogical practices might look like in this third space.

Our thinking therefore echoed Nakata (2002) sentiments, when he contended that,"This notion of the Cultural Interface as a place of constant tension and negotiation of different interests and systems of Knowledge means that both must be reflected on and interrogated."(p. 8). Thus critical refecion of this idea meant that we adopted a courageous stance whereby lively, passionate and active debate was encouraged as the normal par for the subject, rather than be regarded as something to be avoided. Ultimately, this is how honest, open conversations and convergences of "cultural connectivity" (Ireland, 2009) can happen. Linking Indigenousness provides the space whereby the authenticity of these cultural interactions are realized, and a space for meaningful dialogue across cultural divides is possible:

What is needed is a reconsideration of a different conceptualisation of the cross-cultural space, not as a clash of opposites and differences but as a layered and very complex entanglement of concepts, theories and sets of meanings of a knowledge system...(and) should be primarily about bringing them into conversation...in order to negotiate a new set of meanings and reinterpretation of meanings. (Nakata, 2004, p. 14)

Like Nakata we attempt to 'story' our experience to provide a springboard for the difficult dialogue we are having at the interface of Indigenous and western knowledge systems to make the appeal for more productive engagements that are essential to reconciliation. Yunkaporta and McGinty (2009, p. 56), in discussing an educational framework utilising the
"interface between Western curriculum knowledge and Indigenous knowledge", posited that it developed into "...a central metaphor for working synergistically in the overlap between multiple social realities and ways of knowing." As such, our students are strongly encouraged to engage with synergistic dialogues requiring active risk-taking through "courageous conversations" (Singleton and Linton, 2005). As lecturers, we also model these interactions and risk-take these negotiated spaces to promote the value we ascribe to this space. We disclose our personal life experiences and demonstrate divergent viewpoints on several topics to show that approaches to issues of identity, representation, history and knowledge are not fixed as entities, but rather exist as multifaceted stances; emphasizing that difference can be thought-provoking rather than fearful. Whilst these perspectives are cognizant of differing cultural belief systems, this does not infer that either the Indigenous or non-Indigenous worldview should be relegated above the other in this space. Rather, we instill the concept that we need to investigate, explore and critically reflect upon both, as asserted by Nakata (2002). In this manner, we make the invisible visible and the familiar more noticeable.

As such, we shift the conversation. Safe spaces are formed within the cultural interface that is our subject. Resistance is eased and inclusivity is enacted. The interface is seen as an springboard for authentic dialogue and the harnessing of these two systems creates new meanings, new knowledges and new narratives. When students discern the experience as collectively 'theirs' and not as an individualised experience, therein lies the possibility for transformation. The principle of the cultural interface shifts the focus from the "I" to "us" and, herein exists the ability to truly connect. The embodied truth lies within the possibilities arising from these interactions of people working together within the space itself to co-create fresh insights. In the dynamics of these promising cultural interactions lie potential for growth, creativity, discernment and enhancement for students to become informed individuals open to the opportunities of 'seeing beyond themselves'. Pedagogical practices, reflective of this mindset, can open doorways by which students can enter into the place of the Cultural Interface safely and assuredly.

Student Feedback: "Before joining this class, I was somewhat unaware of the existence of the Cultural Interface and I shied away from engaging in cultural discussion because of how difficult they can be. This class has shown me that although existing in the Cultural Interface is difficult; it is necessary and very rewarding."

"I am just one person, but if everyone could have the experience I had in this class, the Cultural Interface would become a thing of sharing and beauty not tension. Because we are active agents in our own lives, we must use our learning to create cross-cultural understanding on a day to day basis. This is where the cultural interface and classes like this become very useful."

3 Pedagogical Framework

Rather than just 'embedding' Indigenous perspectives, our subject is designed to ensure 'engaging' is a core element of our pedagogy and that all students feel an integral part of the academic fabric which comprises the Australian cultural landscape. As such, we critically reflected upon our own teaching practices to ascertain how we could achieve this type of engagement. Consequently, we intentionally determined that a different philosophy, pedagogy and practice were required to develop an effective program that could enact a real difference to student perceptions, inclusive of 'hearing' and 'valuing' students' individual voices.

As educators, we therefore intentionally planned to 'create spaces and make places' to educate a culturally safe context by which our students could examine emotionally difficult topics relating to cultural arrogance and ignorance, colonialism and violence, systemic
racism and our identities as Indigenous and non-Indigenous Australians. We achieved this through a blend of fused intent and sheer passion, modeling our differing cultural perspectives and experiences, and demonstrated our willingness to risk-take. Specifically, we created a 'cutting edge' learning space that sought to actively engage students in "courageous conversations" (Singleton et al, 2005), where open and honest dialogue could occur. We deliberately employed the term 'cutting edge' because this subject is about cutting across boundaries, dissecting complex conversations, breaking down binaries of black/white, good/bad or them/us, and deconstructing how we make sense of our connections with each other. Therefore, the design of our curriculum places the individual students into a critically self-reflective mode of thinking. By adopting these explicit and courageous teaching stances, the effect upon and enthusiasm from our students was infectious, as indicated below.

Student Feedback: "I thoroughly enjoyed this subject. The teaching staff created a safe environment for discussion of important issues. Where there were requirements to discuss the issues and peoples, the approaches to them...were handled in a sensitive and non-judgmental manner. I think this should be a compulsory subject for all students at JCU as it is delivered and taught in a manner that serves to enhance individual awareness of Indigenous issues." (2011)

"This was a phenomenal learning experience for someone form a different country. I loved learning about Indigenous Australians and their culture and views and how all Australians and even those of us from overseas have the opportunity to be part of this in a positive way." (2010)

In the pedagogical re-design, a scaffolded framework was utilised. In this manner, students gradually and confidently offered their opinions in a safe environment, knowing that these would be acknowledged and valued, rather than ridiculed and denigrated. Explicitly, we employed teaching approaches where:

- collaborative teaching is modelled to overcome the challenges of emotionally difficult topics and replicate reconciling cultural interactions;
- deconstruction of texts to demonstrate how values and positions are taken up by individuals is examined;
- strong positioning of Indigenous voices as primary sources of stories is promoted;
- opportunities to build relationships and foster synergy between students, Elders and Indigenous scholars is strategically integrated into our delivery;
- ‘mirrored’ spaces to allow students to 'look back' upon themselves to critically self-reflect is enacted at various stages of the subject.

Our transformative pedagogy then, focuses on three (3) key approaches:
Modeling and facilitating 'courageous conversations' at the cultural interface
Narrative inquiry including personal multilayered and multi-media stories
Experiential or encounter learning with cultural guides.

3.1 Modeling and facilitating 'courageous conversations' at the cultural interface

In our team teaching approach, we model difficult dialogues through sharing our own personal experiences to demonstrate how to reflect and interrogate our own positions and that of others. For example, we explore the ways in which dominant discourses have been perpetuated and invite students to critically engage in conversations based on the varied perspectives of both past and present events, not to engender guilt, but to simply deconstruct these stereotypical constructions. We discern the Australian cultural landscape as a site of contestation, where multiple narratives, representing settler and Indigenous relationships, are examined. Stories, often silenced and misunderstood take courage to speak about, especially within the first year experience. As educators, we encourage
students to embrace their fears by indicating that 'no topic is taboo'. The underlying philosophy of these conversations is simply that they need to be exposed to be understood. Therefore, we explore the ways in which hegemonic discourses are perpetuated and initiate courageous conversation based on the politics of representation to deconstruct these polarised imaginings. Specifically, we focus on issues of racial identity in terms of authenticity. We set the context whereby we explore how perceptions of authenticity arise, why they persist and the social impact of such acuities. Furthermore, we examine conflicted terminology, such as 'settled versus invaded', 'civilised versus uncivilised', 'ownership versus belonging' and consider these oppositional binaries as artefacts of colonisation. This act of deconstructing these post-colonial constructions allows the complexities of the cultural landscape seldom made explicit to become visible. In this manner a revitalised approach to the shared Australian cultural landscape can be appreciated and seen with refreshed eyes and heard with combined voices.

Student Feedback: "I thoroughly enjoyed this subject. The teaching staff created a safe environment for discussion of important issues. Where there were requirements to discuss the issues and peoples, the approaches to them...were handled in a sensitive and non-judgmental manner. I think this should be a compulsory subject for all students at JCU as it is delivered and taught in a manner that serves to enhance individual awareness of Indigenous issues."

(2011)

"Sharon's teaching methods were sensitive to what could be considered a confronting subject, especially in view of the past treatment of the Indigenous population. She discussed current issues with thoughtful insight which generated discussion amongst student groups." (2007)

3.2 Narrative inquiry (multilayered stories and multimedia experiences)

We energise the curriculum through the use of multi-layered stories surrounding the events that have shaped the Australian historical, social and cultural terrain. We draw on the idea that 'our metaphors define us and our stories sustain us' (Foeman and Nance, 2002). In other words, we examine the socially constructed terrain of past events and mindsets surrounding both Indigenous and settler histories to contest and re-present current perspectives of Indigenous Australians. Our focal points are those that prioritize Indigenous stories and give a multi-directional gaze into the diversity and depth of Indigenous Australia. This is why we draw upon a number of Indigenous media such as the film, 'One Night the Moon' by Rachel Perkins and the autobiographical text 'Maybe Tomorrow' by Monty 'Boori' Pryor to deconstruct the layers of meaning as learning experiences. These 'situated stories' are at the heart of our approach and fundamentally reflect narrative inquiry theory and practice. Mary and Ken Gergen also perceive the importance of this approach when stating that these: "narratives [are] as cognitive structure or schema through which we understand the world" and "narratives as discursive actions" (2006, p. 118). Furthermore, "...the small story approach is able to theoretically and methodologically enrich traditional narrative inquiry...by more radically re-positioning big story approaches as grounded in dialogical/discursive approaches such as small story research" (Bamburg, 2006, p. 139). This is well exemplified by the two aforementioned texts, 'Maybe Tomorrow' by Boori Pryor and the film 'One Night the Moon' by Rachel Perkins. In the first scenario, Boori Pryor's text presents as a counter-narrative of his familial experiences that, at times, is diametrically opposed to the meta-narrative of mainstream history. Through rich anecdotal narratives, he is able to capture a 'lens-scape' that is intimate, authentic and relatable. He tugs on the heartstrings of our students by presenting a story that is traumatic, yet strangely uplifting, as it moves beyond recriminations. Likewise, the film One Night The Moon, created by a contemporary Aboriginal storyteller, Rachel Perkins, interrogates conflicting attachments to and representations of the historical Australian landscape. The underlying themes explore
how Aboriginal peoples’ intimate knowledge and attachment to ‘country’ can unsettle the settlers’ claims to ownership and therefore challenge notions of place and belonging. But more than this, it also encompasses a multiplicity of ‘situated stories’ of all the characters, both Aboriginal and non-Aboriginal, within the film. The contextualisation of people within the historicity of their time is utilised to connect with these figures as human beings, not to judge their actions, but to understand their roles and relationships with the world and each other at that time.

In doing so, both the film and text honour the experiences of Indigenous peoples and contribute to multiple, collective and collaborative readings of ‘Australian-ness’ in a non-threatening manner. Whilst autobiography and film are powerful tools for constructing what Smith (1999) refers to as “counter-histories”, these can also be perceived as a means of expiating pain and forging connections with those who have been mis-informed by Western practices. By doing so, students gain new ideas about the complexities of power, oppression and resistance and are able to link this examination to the ways in which they are situated within dominant traditions. Via these narratives, the Linking Indigenousness curriculum ‘deepens the dialogue’ and ‘humanises’ the subject space, so that our students can perceive how the mindsets, events, and actions of the past have impacted upon and shaped the present. In this manner, we strongly challenge our students to become active agents to imagine and ‘story’ the futuristic place of geographical imaginings that can be a reconciled Australia.

Student Feedback: " The different ways of presenting information was extremely beneficial. I liked how you displayed images, shared stories...One night the moon told the core story. Monty's book was worth the read!" (2009)

" A wide range of literature allowed for active engagement and discussion thoughtfully provoked. Lyn's particular strength was in playing 'devil's advocate' to open lines of exploration into areas that were otherwise taboo." (2010)

3.3 Experiential or encounter learning with cultural guides

We regard this subject as a journey of discovery for our students, 'linking' a direct field trip experience as the connector between the academic ‘theorising’ to the practical ‘living’. This is epitomised by us in an internalized classroom and our interpretative guides in an externalised classroom. Experiential learning allows students to reframe their understandings of the world following this experience with an interpretative guide. The significance of our cultural guides as interpreters therefore is an integral and significant part of their journey. For example, 'Uncle Rusty Butler, a local Aboriginal elder, who leads the field trips in Townsville and the Kuku Yalanji people from Mossman (for Cairns students), breathe 'cultural life' into the subject content. The interpretive guides epitomize the heart of this subject's success. Their honest and caring interactions allow all of our students to approach, value and engage in positive and respectful cultural exchanges enabling them to talk openly about sensitive issues. The significance of our interpretative guides cannot be understated. Their inclusion breathes life into the cultural content of our subject, revealing a side of life, which cannot be gleaned from texts. Importantly, through our respectful partnerships and strong connections to the local Indigenous community, we model for the students the need to engage with different worldviews. This then becomes a ‘mirrored space’ as these experiential encounters require them to examine their own place within these cultural interactions. These experiences are the basis for interactions, dialogues and reflections creating a lasting, positive impact. This then supports the initial transformation in students' understanding of Indigenous Australians as the quotations in the textbox indicate.
However, underpinning this cultural teaching is a powerful philosophical framing derived from ancient times. Prior to the Field Trip experience, all students engage in an awareness of this philosophy that informs Indigenous knowledges.

3.3.1 Indigenous Social Theory

Aboriginal philosophy is often presented as a metaphorical allegory. Mandawuy Yunupingu (1993) offers the following example of Ganma when discussing 'brackish water'. Ganma brings another image to mind. A deep pool of brackish water, fresh water and salt water mixed. The pool is a balance between the two different natural patterns, the pattern of the tidal flow, salt water moving in through the mangrove channels, and the pattern of the fresh water streams varying in their flow across the wet and dry seasons. Often when I describe this vision to Balanda, non-Aboriginal people, they wrinkle up their noses. For Balanda, brackish water is distasteful. But for us the sight and smell of brackish water expresses a profound foundation of useful knowledge - balance. For Yolngu Aboriginal people brackish water is a source of inspiration. In each of the sources of flowing water there is ebb and flow. The deep pool of brackish water is a complex dynamic balance. In the same ways, balance of Yolngu life is achieved through the ebb and flow of competing interests, through our elaborate kinship system. (p.8)

This concept of Ganma therefore is a metaphor, and more importantly, a social theory. It becomes then, a cultural framework of complex meaning; a conceptual structure by which to regard the world and our place within it, while providing a guiding set of principles of what that interaction should look like. In this manner, as it is socially constructed and socially situated, it can be construed as social epistemology. However, this Indigenous philosophical perspective does not always easily sit within Western paradigms, which give far more weighting to the scientific, rational patterning of thought. As such, with our students, we critically appraise the inference that all knowledges are equal and valuable, but arise from different perspectives for different purposes and from different systems of beliefs.

Linking Indigenousness is primarily designed to examine issues and theories supportive of Indigenous knowledges and highlight the contestations and contradictions in affirming the place of the Indigenous knowledges in the predominantly westernised Academy. In this manner, as suggested by Nakata, Nakata, Keech and Bolt (2012) we situate our students in meta-thinking learning.

By learning to focus on the conditions of the Indigenous arguments, in relation to the conditions of Western theorizing, students can be led to develop awareness of the limits of various positions, the persistent pervasiveness of 'all-knowing', 'taken-for-granted Western frames, an awareness of the reproduction of those frames in Indigenous analysis, and an appreciation of just how intricate and open to interpretation the dance round worldview, knowledge and practice is as a result. (p. 133)

Once students engage in this process of meta-thinking, the configuration of practical and theoretical elements become highly visible and students feel informed, challenged and
motivated to engage wholeheartedly with these complex concepts, as per both the qualitative and quantitative data demonstrates.

4 Evidence of Effectiveness (Feedback)

Irrespective of how important a subject is, or how well designed its curriculum, unless students can ‘see’ the value in undertaking it, then their interaction and success with it may be limited. Our success in respecting and supporting our students along the journey of exploration into the Cultural Interface has been demonstrated by highly positive evidence from student feedback. This has clearly demonstrated via both (a) qualitative (evidenced throughout) and (b) quantitative (statistical) data as below. Overall, as the evidence testifies, many of our student cohorts felt that the experience of actively engaging with us in the Cultural Interface was a worthwhile one.

4.1 Quantitative: Statistical Evidence:
The following table highlights the sustained quality students (over 1000) have accorded this program. It displays the percentage of students for 2009 to 2011 who reported above average to outstanding satisfaction on the questions listed:

<table>
<thead>
<tr>
<th>Question</th>
<th>2011</th>
<th>2010</th>
<th>2009</th>
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<tbody>
<tr>
<td>Overall, I am satisfied with the quality of this subject</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>As a result of this subject, I feel more confident about tackling unfamiliar problems</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>This subject developed my problem solving skills</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>This subject sharpened my analytical skills</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>This subject helped me develop my ability to work as a team member</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The teaching and learning experiences of this subject were well organized</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The staff made a real effort to understand difficulties I might be having with my work</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>My lecturers were extremely good at explaining things</td>
<td></td>
<td></td>
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<td>The teaching staff worked hard to make this subject interesting</td>
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<td>The teaching staff of this subject motivated me to do my best work</td>
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5 Conclusion

This paper outlines how we successfully utilised three innovative elements of transformative pedagogy: (1) modeling 'courageous conversation' at the cultural interface; (2) narrative inquiry including personal multi-layered and multi-media stories; and (3) experiential or encounter learning with cultural guides; to engage, motivate and inspire student learning. The challenging, contentious, yet enriching space that exists in embedding Indigenous perspectives within the Australian higher education context cannot be understated. The Indigenous Higher Education Advisory Council (IHEAC) cites the importance of this as a strategic goal at the national level. Linking Indigenousness stands as testimony to how this can be achieved and how reconciliation becomes more than just rhetoric. To see students who were previously, culturally cautious or withdrawn take ‘a leap of faith’ and engage in these ‘courageous conversations’ denotes the ultimate act of transformation.
Student Feedback: "I just want to share a story with you…Sometime before Christmas I was waiting for a taxi in the mall and was confronted by an inebriated and angry young (Aboriginal) woman. Rather than flinch from her and ignore her, I took a chance and asked her where she was from. To my surprise, she told me. This opened up a dialogue between us and we sat there for quite some time, whilst she told me her sad story. Although she was young, her pain was obvious. I know this does not sound like anything special, but I just wanted to thank you for your program. Without it, I would not have had the courage to talk to her and hear her story." (2009)

References


Realising and developing student's potential: personal and spiritual reconciliation.

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ABSTRACT: Realising and developing students' potential: personal and spiritual reconciliation

Spiritual care has been and remains a key area of health and nursing practice. Spiritual care is identified as intrinsic to nursing programmes and considered part of the work of health care staff (NES, 2009). Literature, symbols and story-telling are well known approaches to learning and researching about spiritual and emotional health (Kellehear et al, 2009; Sandelowski and Carson Jones, 1996: Seymour 2009, NES, 2009).

Existential loneliness afflicts people in troubled times; relationship troubles and breakdown, work troubles, illness and particularly impending death prompt a need to consider existential questions, issues and problems. Our busy secular lives often cause spiritual issues to be buried deep.

In troubled times throughout our complex lives when confronted with difficulties, lost and broken relationships our spirits can require peace, balance, resolve and acceptance. Achieving completion, forgiveness and coming to peace with oneself, one's life and existence require skill. Taking responsibility for ourselves and eradicating blame is often painful and difficult.

In this paper we will suggest innovative teaching and learning methods which use story-telling and reflection to expand health care students' personal and professional understandings of spiritual and emotional care.

We will discuss how students are encouraged to hear the stories of patients/clients, reflect on their own personal and professional stories and find meaning that has significance for patients in their care and to recognise the need for reconciliation in themselves and their patients. The emotional labour of reconciliation is painful but enables people to come to resolve and acceptance, to move forward at times when their inner self/spirit is troubled.

Our teaching strategies and resources have been developed over many years and in the context of established modules such 'Spiritual, Religious and Emotional Health' and 'Caring through the Arts and Humanities' and will be presented with student evaluation of the work.

1. Setting the scene

Nursing students learn from both the sciences and the arts. Spiritual care, an example of teaching and learning about the art of nursing, has been and remains a key area of health and nursing practice (NMC, 2010). Spiritual care is identified as intrinsic to nursing programmes and considered part of the work of health care staff (NES, 2009; NMC, 2010).

In this paper we discuss the teaching and learning experiences of students undertaking an established module in spiritual health. Students take this module in their final year of a pre-registration nursing programme and the module is an elective. During this academic session 2012 - 13, the 10th year that the module has run, there were 60 students taking the module. As the art of care is intrinsic to the module, the teaching methods are drawn from literature, symbols, story-telling, film and museum or gallery visits which are well known approaches to learning and researching about spiritual and emotional health (Kellehear et al, 2009; Sandelowski and Carson Jones, 1996; Seymour 2009).

Existential loneliness afflicts people in troubled times. These include relationship troubles and breakdown, work problems, illness, dying and death. Such problems prompt a
consideration of existential questions and bring to the fore the spiritual issues normally deeply buried by every day material living.

When confronted with these difficulties there is a desire to find peace within ourselves, balance, resolve and acceptance. However developing these personal qualities requires attention, awareness and skill and includes taking responsibility for ourselves and eradicating blame. The emotional labour of reconciliation is considerable but enables people to come to a place of resolve and acceptance, to move forward at times when their inner selves are most troubled (Robinson et al 2003).

1.1 The purpose of this paper
In purpose of this paper is to suggest innovative teaching and learning methods which use story-telling and reflection to expand health care students' personal and professional understandings of spiritual and emotional care. We will discuss how students are encouraged to hear the stories of patients/clients, reflect on their own personal and professional stories and find meaning in themselves and the lives of their patients. Our teaching strategies have been developed over many years within the context of the module under discussion and a module entitled, 'Understanding caring through the arts and humanities'. In addition we will discuss the findings of an evaluation study undertaken by this year's student cohort as they wrestled with the concept of reconciliation, a key topic within the module.

1.2 Background considerations relating to spirituality and reconciliation
There are pressing incentives to find ways of teaching spirituality and reconciliation to students of nursing/health and those incentives relate to the less attractive aspects of the human condition. Reports such as those investigating the failings of the Mid Staffordshire NHS Foundation Trust (Francis 2013) indicate that society needs to find ways of dealing with the painful consequences that arise due to violating the intrinsic dignity of human life. Such human failings raise serious questions about why we fail and point to the need to find ways of defusing conflict which arises when different beliefs, values and perhaps cultures, supersede the intrinsic worth of being human. In putting spirituality on the curriculum agenda it is hoped to raise consciousness of the various manifestations of the human spirit in the belief that if it is an aspect of humanity that applies to anyone of us, it applies to us all.

It is possible to consider the noumenal, the kind of knowing which cannot be gained through the senses - such as that of spiritual knowing - in a similar vein to aesthetic knowing, perhaps even as one and the same thing. For example, in an effort to emphasise spirituality as central to holism, McSherry and Draper (1998: 688) describe it as 'a unifying force at the foundation of holistic philosophy'.

It is difficult to investigate a concept like spirituality as it has many different meanings and the significance of any one interpretation of the concept can vary according to individual beliefs, values and circumstance but it invariably has something to do with personal truth - as Cicero states, 'For that man whom your outward form reveals is not yourself; the spirit is the true self' (De re publica bk. 6, ch 26). However we teach this module believing that students cannot understand the world they live in, with its joys, conflicts and suffering unless, to borrow a phrase from Glen (1995), they have enough critical spirit, the force which motivates people to be willing and sufficiently discerning to arrive at well-thought-through, albeit tentative, views of their own. So, difficult though the area of study may be, it is essential to examine the personal thoughts and values which direct educated nurses as they endeavour to provide spirited, critical and compassionate care to patients irrespective of race, lifestyle, culture and religious or political beliefs (NMC, 2010).

By its very nature education in relation to spirituality in nursing has to be evocative of the personal beliefs, values and experiences of the student; it includes the kind of knowledge
Carper (1978) described as 'personal'. Thus, the teaching methods in most of the classes enable a time for discussion so that students can talk about their own experiences of spirituality both in relation to themselves and patients. The emphasis on centring learning round the thinking and experiences of students leads naturally to the course culminating in a reflective assessment, a method chosen because it offers students the opportunity to examine a prior spiritual experience thereby uncovering insights that can inform future spiritual care practice. In a sense, reflective inquiry helps students assert a degree of control over their own theorising or metacognition (Eraut, 1994) thereby developing their cognitive and affective skills in a way that opens up new perspectives. By applying the skills of self-awareness, description, critical analysis, synthesis and evaluation (Atkins and Murphy, 1993) students can tease out their learning from practice - in Schon's (1987) sense of reflection-on-practice.

Another reason for the reflective assignment is to capture students' thinking about what they perceive to be a spiritual experience rather than colouring their thinking by providing a more fixed directed assessment framework. Bearing in mind our increasingly secular culture it is important to give credence to the breadth and depth of experiences that students report as spiritual, whether those transpire to be grounded in a belief system or not.

This assessment approach was chosen to try to uncover what individual students believe constitutes a spiritual experience and is an attempt on our part as lecturers to avoid prescribing what students ought to believe thereby conforming to our notions of a spiritual experience. Reflecting on that experience was based on the premise that in so doing, students would gain deeper understanding of the meaning of the experience and be able to connect their experiences to practice (Glen, 1995). Thus, reflection facilitates the development of professional expertise by bringing to consciousness tacit knowledge inherent in practice (Schon, 1987).

Spiritual knowing also embraces the kind of knowledge that Carper (1978) described as 'aesthetic'. Aesthetic knowledge requires perception and empathy to form creatively elements of a situation into a cohesive whole. There is a sense of occasion, a coming together, even enlightenment in aesthetic knowledge as well as a sense in which this 'all at once' interpretation of the situation results in transformation (Carper, 1978, 1992; Smith 1992).

1.3 Students' accounts of their spiritual experiences: an example

The following story illustrates one student's (Mary's) experience of the transformative power of a spiritual experience:

Mary: The spiritual experience I have chosen to reflect on is a personal one that happened to me nearly seven years ago, its not a particularly pleasant one, but it is the strongest one that I've had, and it changed my life.

I was married with a four year old and a six-month-old baby and my husband was becoming increasingly violent. On the night that the incident happened we had been at a function and had had a pleasant evening but when we got back to the house the atmosphere changed. My husband started an argument and it escalated, to him putting his hands around my neck and strangling me.

Well at first I struggled and fought back but it was pointless as he was stronger. As I couldn't breathe I was terrified, panic-stricken, fighting. Then suddenly those feelings just vanished. Disappeared. I still couldn't breathe but there was no panic and I thought I'm going to die but I wasn't scared anymore and I felt strangely uplifted. It wasn't a superficial thought that I was going to die it was a fact. No bright light at the end of a tunnel, just a warm peaceful feeling that everything was ok.

I must have passed out; when I came to I was alone except for my four-year-old standing in the doorway, silent. I do not know how long he was there, or why he woke up he never
usually did overnight. Did he disturb his father? What woke him? These are my unanswered questions. I believe that something woke my son, and he disturbed his father saving me. Why else that overwhelming feeling of peace?

Although I had a Christian upbringing and did the usual Sunday school things went to church etc. I didn’t have any serious beliefs in religion. In fact I had rebelled against it became a bit cynical about the whole religion thing. But since this experience I feel that there is a force, a God whatever, and it controls when it is our time to live and die. However unpleasant the incident leading up to my ‘spiritual experience’ was, it has been a positive experience. I felt that I had been given a second chance for a reason and it was time to make changes. So over the next few months/years I divorced my husband, made a new home and settled environment for my kids, went back to education & married a new man, basically completely changed my life for the better.… I wouldn’t wish my experience on anyone else, and I certainly don’t want to experience anything like it again. But it did change my life for the better, or was that me? One thing I know is that when my time to die does come it’s not something to be frightened of. I am more aware of other people’s spiritual needs now, how many other people have had similar experiences and I do try to be aware of that in my practice.

Characteristics of this spiritual experience include suffering, transcendence, feelings of peace and of finding that life has meaning (‘I felt that I had been given a second chance for a reason’). The resultant transformation was characterized by actions that required courage, an ability to learn through suffering, a balanced perspective on life, a desire to seize the moment and pursue desires, sensitivity towards others, and reconciling the past.

This reflective account is a good example of the ‘transformative’ nature of spirituality. It demonstrates how a spiritual interpretation of events can bring about a radical change in a person’s life-style, beliefs, values and attitudes. Moreover spiritually significant events can have an impact across contexts. As the above story illustrates, there were positive outcomes in the student’s professional work as well as the more obvious transformation of her personal life. To use popular educational language, spiritual learning may be transferable from one situation to another. Also it indicates that personal spirituality, although a unique and private experience, affects other people in that it can change family life and professional practice.

1.4 Key considerations when teaching reconciliation.

When we teach reconciliation we clarify that we are addressing personal reconciliation and not political/mass/post-war reconciliation. The teaching focus is the importance of reconciliation in the end-times of a person’s life which Robinson et al (2003) suggest is an important part of end of life care for many.

As students are concerned with providing care for other people, as a first step, it is important that they learn to experience reconciliation in their own lives. Therefore self awareness is key to the process of reconciliation and students are encouraged to develop a sense of understanding and meaning of life, a sense of fulfilment and wellbeing.

Students can relate to and engage with scenarios such as broken relationships causing unease and needing resolution and the therapeutic nature of reconciliation in terminal care (Cellarius 2008). Skills to promote and understanding and reconciling state of health, illness and lifespan need careful development.

What proves difficult is developing the skills of finding and helping patients find reconciliation of matters which do not have ‘fairytale endings’ or unrealistic wishes.

The teaching of the skills to be able to work with patients in reconciliation promotes dignity in death, closure and improves quality of life (Mok et al 2010; Johnston et al 2012).
We presently only teach this to senior student nurses but their engagement with this work and their feedback has led us to believe that this could be taught more widely and be valuable to many students not just students of healthcare.

1.5 Evaluating student's learning of reconciliation-
Academic year 2012-13
From the 52 students on the module, 64% completed the evaluation questionnaire.

Overall there were no negative comments and students were highly positive of their experience of the module and its value.

Quotes from feedback
'It's about finding individuals' own answers to their own questions with guidance'
'It has helped me make sense of a long term disagreement with s family member that I have not seen for a long time'
'I can distinguish between reconciliation and forgiveness'
'Will be able to approach the matter with knowledge and confidence'
'allow understanding of patient behaviour in their past experiences they have encountered in their life.'
'Has opened my mind on various elements of spirituality and how to effectively utilise them in my practice and personal life.'
'This module has been great, uplifting and refreshing.'

We were interested in how the students thought the session would be valuable and how much they felt it would be of personal and professional value so we asked the students two different questions that were really asking the same thing to see if their answers were consistent.

We asked them 1. To rate the value on a 1-10 scale of the value in both their personal and professional lives. 2. To rate on a 1-10 scale the value in palliative care, nursing, with family and friends and for themselves.

Both these question yielded the same results as can be seen in these pie charts.
References:


Empowering students to articulate into second year of a nursing degree programme

Joan Irwin & Louise Johnston
University of the West of Scotland

Abstract
As an institution the University of the West of Scotland (UWS), School of Health, Nursing & Midwifery has endeavoured to enhance the articulation of nursing students from Further Education (FE to Higher Education (HE) with involvement & support of local Health Boards. This area of work also recognises that the Nursing & Midwifery Council (2010) require HE Establishments to recognise students prior learning to facilitate career pathways. Students articulating into second year need to feel empowered to succeed. Long standing partnership working with local colleges and the work of the South West Articulation Hub saw the development of a module to facilitate some students joining the degree programmes in second year. The module provided by UWS over the summer time enables those selected from their HNC year to commence early engagement with UWS. The empowerment process then begins socially and academically to facilitate the transition from FE student to HE students equipped with the skills and practice hours to succeed in second year. This presentation will discuss the module and its role in empowering the students and highlight the evaluations of the first group of students through the module. The findings will suggest the empowerment process is vital to student’s engagement and success.

Introduction
Following the Project 2000 proposals (UKCC 1986) nurse education changed fundamentally and moved into Higher Education Institutions (HEI's) from traditional schools of nursing. The Nursing and Midwifery Council (NMC 2004) stipulate the standards of proficiency for pre-registration nurse education. These standards also incorporate a requirement for HEI's to acknowledge students prior learning and this has contributed to a widening of access to pre-registration nursing courses. This widening access has allowed students to enter in greater numbers and has increased the diversity of the student nurse population (McCarey et al. 2007).

Over the last number of years the widening of access to Further and Higher Education in Scotland has also been encouraged by various policy initiatives (Scottish Executive 1999, Scottish Executive 2003). The Scottish Credit and Qualifications Framework (SCQF), established in 2001 amalgamated the main qualification frameworks creating a single structure with an aim to "assist people of all ages and circumstances to access appropriate education and training over their lifetime to fulfil their personal, social and economic potential" (SCQF 2001, p.1) further supporting lifelong learning in Scotland.

The development of articulation routes into Higher Education Institutions has become key to facilitate the creation of additional pathways into university. (Scottish Funding Council 2011). Articulation is the process whereby a previous qualification allows a student to enter directly into second or third year of a university degree programme. Gallacher (2006) suggests that these articulation pathways require close partnership working between Further and Higher Education Institutions to adequately prepare students for advanced entry into university. This facilitation of career pathways endorses the Scottish Government's undertaking to promote the creation of adaptable articulation routes (Scottish Government 2011). This paper explores the long standing partnership working with local colleges, Health Boards and the South West Articulation Hub in the development of a model to facilitate the articulation of a number of students into second year of the University of the West of Scotland (UWS) undergraduate nursing degree programme.

Articulation
As an institution UWS School of Health, Nursing & Midwifery (HNM) has endeavoured to enhance the articulation of nursing students from FE to HE with involvement of local Health
Boards. UWS although a modern university has a long standing philosophy of widening participation and providing local education (UWS, 2008). Robbins (1963) suggested that Higher Education had four aims: (1) instruction in skills; (2) promoting the general powers of the mind; (3) the advancement of learning and (4) the transmission of a common culture and common standards of citizenship. Robbins (1963) therefore provided the basis for an expanding higher education system which encouraged wider participation and accepted diversity of missions between institutions. The more recent Scottish Government report (2011) sets the educational context in more modern terms by suggesting that Higher Education in Scotland should be a civilising force making key contributions to the economic success of the country.

The vision of UWS is that it will have "transformational influence on the economic, social & cultural development" within its local area and beyond by providing "high quality, inclusive higher education and innovative and useful research" (UWS 2008, p.2). UWS (2008) stated in its strategic plan (2008-2015) that it aims to be uniquely responsive to partnership working and new demands made on education. This module that has been developed is an exemplar of such partnership working through articulation.

Since 2007 the Scottish Funding Council (SFC) designated articulation hubs have been working in local areas and at national level with the common aim of articulating students into years 2 / 3 of degree programmes (South West Articulation Hub, 2009). Prior to this within UWS a career structure existed for local health board employees (as care assistants) to remain "employed" whilst undertaking the three year nurse education programme. This was by attending a local FE college in year 1 and articulating into UWS for years 2 and 3 , whilst remaining on their salary. Gradually however with the changes in economic climate and funding for this initiative the places for this are extremely limited to one local area. However, in working in long standing partnerships with local FE colleges and Health Boards UWS recognised the need for such work to continue through new articulation opportunities.

The South West Articulation Hub (SWAH, 2009) was set up and sets out its aims in its "Forward plan" (2008-2013). Health Nursing & Midwifery (HNM) was part of the SWAH but also had to work within the constraints of the Nursing & Midwifery Council for entry of students to the national register (NMC 2010). A small team within HNM bid through SWAH for funding for a project which was completed 2010/11. This involved inviting students from local HNC FE courses to come into UWS twice during their HNC year and link in with UWS environment, staff and students. The evaluations from this work and meetings with local FE colleges from the SWAH formed the basis for discussions for a new learner journey through articulation.

Students commence HNC with local FE colleges and are then selected by UWS for year 2 Nursing Degree (Adult or Mental Health). They then complete a bespoke module (Extended Practice Learning Experience - PLE) over the summer months prior to commencement at UWS. The outcomes of their HNC year and UWS year 1 are mapped together so that any potential deficit can be addressed. It is important that the students are prepared with the knowledge and skills required to commence their higher education (Cree et al, 2009).

Transition

For students to become properly integrated in their new university environment they must complete three steps: separation, transition and incorporation (Tinto 1987 cited in Whittaker 2008). McInnis et al (2000) advocate that students experience four main forms of transition: personal and social; geographic; administrative and academic. According to Harvey et al. (2006) students require assistance to settle into university and to become independent learners. The growth of Higher Education and the diversity of the student population have brought about an increased need to support this heterogeneous student group (Harvey et al. 2006). The feeling of fitting in within Higher Education and the establishment of friendships has been advocated as being vital in assisting students' personal and social transition into first year (Yorke and Longden, 2007).

Support has been highlighted as being crucial in the assistance of integration into higher education. Support can come from various sectors including family; friends; peers; tutors as well as formal student support organisations (Steele et al. 2005). Woodfield (2002) indicates
that the friendship support networks that students establish provide a vital support system as they experience the fluctuating highs and lows of student life.

Geographical transition issues are linked to the impact large spread out campuses have on students (Whittaker 2008). Cree et al. (2009) advocate that large universities can be overwhelming for students as can large classes, with many students who enter higher education being exposed to large class sizes for the first time. Thomas and Hixenbaugh (2006) purport that large classes can have an effect on both traditional and non-traditional students and can lead to a decrease in the personalised approach to learning.

Administrative transition involves issues including enrolment, access to information networks and academic staff (Whittaker 2008). Universities now use information technology for many of their administrative purposes (Haigh 2004). Peyrovi et al (2005) advocate that students should be encouraged to use the support of Information Technology (IT) departments, tutors and peers to become more familiar with the institution's IT applications and environment. Fleming and McKee (2005) indicate the importance of including IT skills support for all IT competence levels and also endorses the inclusion of IT skills support in induction programmes.

The political drivers which have led to the philosophy of widening access to higher education have contributed to the increase in non-traditional students who enter higher education with a varied spectrum of educational qualifications (Scottish Government 2008). This changed student profile have led to some academic staff raising concerns in relation to students' academic performance and their ability to successfully undertake the academic demands placed on them throughout their nursing degree (McCarey et al. 2007).

Cree et al. (2009) carried out a longitudinal study of 45 social work students' experiences of transition from further education to higher education. Cree et al. (2009) report the students found the transition to be particularly challenging and the results indicated that students did not feel as prepared as they had hoped for university study. Students reported that they had not had experience of formal exams or of the different types of assessment they were now undertaking. They also stated they found academic writing and referencing difficult. Moir (2010, p.3) advocates the purpose of higher education is one of "Transformation rather than Transmission" with increased focus on the student. He purports that personal values and social experience are now being seen as important graduate attributes compared to the traditional view that focussed on gaining knowledge and understanding. The higher education experience is more than ever about empowering students to engage and take ownership of their learning.

Empowerment / Engagement

Empowerment is multi-faceted and not just about making sure the students have the knowledge to enter year 2. Empowerment according to Bradbury Jones et al (2010) involves knowledge and confidence. Bradbury Jones et al (2010) further suggest if knowledge and confidence are addressed then enhancement of self-efficacy will follow. Lowe and Cook (2003) highlighted in their study a substantial minority of students (up to 20%) were failing to come to terms with the academic and social demands of university life. Hence it is important that students are prepared in every way to address this. Lowe and Cook (2003) suggest that universities need to provide appropriate academic, attitudinal and social preparation but that this "induction" is not seen as a one off event but rather a process involving staff, students and peers.

It is suggested by The Quality Assurance Agency for Scotland, (QAA 2008) that in order to be empowered students must be engaged and feel they have a sense of belonging. This engagement commences with meeting the students informally to advise them about the articulation opportunity and follows through selection, pre module information then the summer module. This engagement encompasses academic, social, personal and professional engagement.

QAA (2008) argue that students who are engaged emotionally, cognitively and behaviourally in their education will have enhanced affiliation with their institution and in turn higher levels of motivation, attendance and persistence. Purnell (2006) argues that first year is the ideal time to set up the infrastructure for student engagement. However if they are entering at
year 2 it is imperative that this potential gap is filled. QAA (2008) define empowerment broadly as the student's competency to engage effectively with their studies which involved them becoming independent learners. Part of becoming an independent learner is confidence which was explored by Bloy & Pillai (2006). They concluded that students need to be given the tools (including confidence and competence) to help them engage. The work done by Bloy & Pillai (2006) provided evidence of the positive benefits of engagement, including enhanced motivation & increased awareness to seek help when needed. Learner journeys according to the Scottish Government (2011) have changed and universities must be flexible and adaptable whilst facilitating these journeys so that the learner is not set up to fail. Thus this new innovative learner journey seeks to engage students early and empower them to succeed in higher education.

PLE Module
This stand-alone module allows articulation of a group of HNC students into year 2 of the Undergraduate Nursing programme. It is levelled at Scottish Credit Qualifications Framework (SCQF) level 7 and awarded 20 points. All relevant HNC classes from the partner FE Colleges are given information about the module and the criteria for articulating into year 2. This allows the students to put themselves forward to be selected. The criteria includes: completion of full HNC in college, graded unit at mark A or B; completion of 760 hours by the end of the module (NMC, 2010) of which 180 must be completed within the module and at least 450 hours done as part of HNC; completion of UWS selection process; satisfactory health screening and Criminal Check - Protection of Vulnerable groups (PVG). The FE colleges then collate a short list of students they would support to undertake the module. These students are invited to a personal interview at UWS and if successful are offered a place through the Universities & Colleges Admissions Service (UCAS). The number of places on offer is reviewed and agreed with the colleges annually. It is derived by reviewing the last number of cohorts through the year one period and balancing any losses against the number of audited practice experience areas UWS has available. The outcomes for the HNC and the UWS first year are meticulously mapped together (NMC, 2010) to identify any core elements requiring to be covered in the summer module. Meetings take place 3-4 times a year with the colleges, university & Health Board partners to fully discuss module developments and student's progress.

The module's overall aim is to aid transition into university socially, academically & professionally. The more specific aims are to facilitate the development of knowledge, skills and professional values within the healthcare environment that will enable students to demonstrate that they have met the requirements for the progression into year 2 of the pre-registration nursing degree programme. The bespoke module includes study days (subjects covered include maternity and paediatric care, mental health issues, personal and professional development and skills teaching), simulated practice and practice experience hours. Students complete a portfolio of evidence over the module. The overall assessment is twofold, clinical assessment (50%) and reflective portfolio (50%).

Realities of the module
The inaugural implementation of the module highlighted several realities. Firstly the students had no financial assistance. Although a fee waiver was put in place no bursary support or expenses for travel costs was available. Secondly the students had to undertake this module over the summer months immediately following their HNC studies. They also had little time off for private work or leisure with their families.

Module Evaluation
The PLE module commenced July 2012 with 20 students from 9 different FE colleges. 17 completed and 17 evaluated their experience.

The purpose of evaluation is to make judgements about a course / programme and thus improve its effectiveness (Patton, 1987). Gullickson (2000) suggests that evaluation is an integral and inevitable feature of all aspects of education. It is further highlighted by Gullickson (2000) that student evaluations are particularly useful to provide feedback, inform academic growth, enhance School policy and provide public accountability.
In the case of this new bespoke module students were evaluated as were their clinical mentors and the FE College partners involved. This paper highlights the students' evaluations and shows how these link to empowerment.

Student evaluations - Findings

Evaluation of UWS - Practice Learning Experience Module

On a scale of 1-5, 1 being the worst and 5 being the best please answer the following by circling as you feel appropriate

This module was useful to me

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Comments included: "better insight to the university", "Gave me better confidence", "prepared me for university life", "opportunity to learn more skills", "gave me knowledge"

This module was informative for me

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Comments included: "lecturers were excellent at giving out information on skills and theory", "allowed me to learn about university life", "gained vital information about the programme",

This module helped prepare me for year 2 entry

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Comments included: "prepared me for entry to year 2", "I think I have been given all the tools I need to progress effectively to year 2", "the experience of meeting the teaching staff"

4. This module helped prepare me to start at university

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<th>5</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>5</td>
<td>11</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6%</td>
<td>29%</td>
<td>65%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Comments included: "after being told what was expected of me and the support that was given to me by my lecturer I feel I am confident", "it covered aspects of new theory and skills which will help me progress in university", "meeting other students who were acting as buddies was a great relief and provides support and familiar faces", "it gave me a good understanding of academic expectations...meeting with my personal tutor has been a great help as I have begun to build a working relationship with her"

Do you feel inspired to succeed after this module?

Yes | NO

<table>
<thead>
<tr>
<th>16</th>
<th>1 response was in the middle!</th>
</tr>
</thead>
<tbody>
<tr>
<td>94%</td>
<td>6%</td>
</tr>
</tbody>
</table>

Comments included: "I feel motivated to continue and learn more", "the lecturers support has inspired me", "I feel more motivated to achieve"
Model
Empowering Students

Knowledge
'I think I have been given all the tools to progress effectively into Second Year'.
'Allowed me to progress my learning and understand what is needed'.
Confidence
'After being told what was expected of me and the support that was given to me by my lecturers, I feel I am confident to proceed into Second Year'.
'Feel a lot happier going into second year after doing this Module'.
Preparation
'It covered aspects of new Theory and Skills which will help me progress in Uni and has made me feel prepared to progress'.
'It gave a good understanding of academic expectations'.

Link to empowerment
The main themes to emerge from the qualitative comments were confidence, knowledge and being prepared. Previous discussion in this paper highlighted the vital role that confidence and knowledge plays in empowering students (Bradbury-Jones et al 2010, Lowe & Cook 2003, QAA 2008, and Harvey et al 2006). The aspects of transition discussed earlier further elicit the area of being prepared personally, socially, & academically. Work alluded to by Bloy and Pillai (2006) provided evidence of the positive benefits of engagement and empowerment.

Future of module
Research has been proposed to follow this first cohort of students and track their progress through the journey to registration and graduation. The team feel this will provide more complete evidence of the support needs to empower students to succeed within university. The re-mapping of all the HNC programmes feeding into UWS year 2 has been successfully completed and proved very helpful to both FE and HE partners. UWS have selected the students for the summer 2013 module and they have already had an introductory session in university.

Conclusion
Higher Education (& nurse education) has been constantly changing since Robbins aims were set out in 1963. Learner journeys have evolved and UWS has responded by providing this unique opportunity to articulate into a much sought after nursing degree programme. At the heart of all this change are students with individual learning needs. We believe that such
students can be, and are empowered through confidence, knowledge and being prepared. Through this journey they are inspired to succeed.

REFERENCES


Nottingham


University of the West of Scotland (2009) South West Articulation Hub (SWAH) *Forward Plan 2008-2013*, UWS.


The relationship between university integration and help seeking in first year university students

Andrew Telley, Andrea Chester, and Keong Yap
RMIT University, Melbourne, Australia

ABSTRACT: The present study is a longitudinal survey design that investigated first year students’ attitudes towards help seeking and their expectations and experiences of integration. Results indicated that students’ expectations of integration at the beginning of the year significantly predicted their attitude towards seeking help from both an academic staff member and the university counselling service at 3 and 9 months. Willingness to seek help from either source was relatively low at the beginning of the year, and did not change significantly over the course of the year. Throughout the year, attitudes towards help seeking from the university counselling service were significantly more positive than from an academic staff member. This study suggests that integration at university is useful in predicting later attitudes towards help seeking; efforts to improve student connectedness at the beginning of the year may empower students to seek help later in the year.

1 Introduction

1.1 Integration

Integration at university can be described as having two components: social and academic (Tinto, 2012). Social integration is the interactions between students and the degree of congruency between each student and his or her social environment. Tinto notes though, that friendships are more important than “social fit”, suggesting that students who do not fit the social norm of the university may still feel socially integrated, as long as they are able to form a friendship circle of similar individuals. Academic integration is measured by grade performance (an external factor) and intellectual development (an internal factor). Grade performance indicates that the student is able to produce work that is satisfactory to the requirements of the university, while intellectual development indicates that the student is engaged with, and is being challenged by, the academic content. Taken together, they are indicators of a good “academic fit” between student and institution. Withdrawal from university is “a longitudinal process of interactions between the individual and the academic and social systems of the college” (Tinto 1975, p. 94). The interactions that students experience in both social and academic realms lead to modification of their study goals and commitment to university - ultimately impacting on their decision to stay or leave.

Decisions to stay or leave university are influenced by factors inside and outside the university. Competing demands constitute the push and pull factors that either keep an individual at university or contribute to dropout. Forming friendships at university (social integration) and receiving positive feedback for academic work (academic integration) is likely to “pull” the student towards the university, while feeling socially isolated (lack of social integration) or struggling academically (lack of academic integration) may “push” the student away. Likewise, factors outside the university will affect students' decisions to stay or leave: financial difficulties will pull the individual to paid employment instead of university study, whereas the incentive of receiving a degree will push back to the university. These decisions are made early: dropout rates are highest in first year, therefore the focus is to ensure students are integrated as quickly as possible.(DeBerard, Spielmans & Julka 2004). As a result, social and academic integration are generally presented as issues of transition to university.

One crucial factor that is likely to impact on students' decisions about continuing their education is the presence of mental health problems. Such problems also directly impact on
their studies (and therefore their academic integration) and their social interactions. Heiligenstein, Guenther, Hsu, and Herman (1996) found a significant correlation between depression and academic impairment amongst students who attended the university counselling service with symptoms of depression. Of their sample, 92% reported academic impairment, with more severe depression being related to greater impairment. The high rates of impairment in this study may be explained by the sample - students are more likely to present for mental health treatment only after they recognise a functional impact in their lives. The authors also noted the bidirectional relationship between depression and academic impairment, where a vicious cycle may exist (e.g. absenteeism from class leads to worse mood, which results in further withdrawal).

Precursors of mental health problems such as high stress levels also play an important role. Stewart, Lam, Betson, Wong, and Wong (1999) investigated the stress-academic performance relationship amongst medical students and found that academic performance affected stress, regardless of pre-existing levels of anxiety and depression. They noted that academic performance before and during medical school was negatively correlated with stress - that is, those performing the best academically were also the least stressed. The authors of this study also noted that the relationship between stress and academic performance is likely to be bidirectional, noting a number of confounding as well as pre-existing factors (e.g. high school academic experiences). Despite some mixed results regarding the exact nature of the relationship, mental health and academic performance appear to be related.

Mental health difficulties are also likely to impact, and be impacted by, a student's ability to integrate socially into the university. For example, social withdrawal is a feature of depression, and a diagnosis of depression includes "clinically significant distress or impairment in social, occupation, or other important areas of functioning" (American Psychiatric Association, 2000, p. 349). The relationship between social withdrawal and mental illness is also likely to be bidirectional. In an epidemiological study of over 10,000 Irish adults, Lente et al. (2012) found that positive mental health was predicted by lower levels of loneliness and better social supports. Conversely, lower levels of social wellbeing was the strongest predictor of poor mental health.

Tinto's (1975) model of university dropout suggests that poor social and academic integration is likely to lower students' commitment to their institution, which in turn increases the likelihood of voluntary withdrawal. In the short term, withdrawing from study may be beneficial to students' mental health (e.g. decreased stress), however over the long term, these individuals are not achieving their goals or fulfilling their potential - the long term impact of withdrawal from university due to mental health difficulties is unknown. If poor mental health leads to withdrawal because of low integration (both social and academic), intervening via integration initiatives may assist individuals at risk of withdrawing due to mental health difficulties to stay at university.

Other student attributes can also be used to predict student success. For example, McKavanagh and Purnell (2007) described three traits of "at risk" students as being difficult in maintaining motivation, unrealistic expectations about managing studies, and reluctance to seek help. Using data from 1100 interviews with students who were not academically progressing to a satisfactory degree, they found that negative interactions with the university impacted on motivation. Furthermore, over half of those students interviewed were working more than 30 hours per week, indicating lack of awareness as to what is required to complete a university degree. Most relevant to the current research, the interviews found that only 12% of students had sought help once they identified that a problem existed.

1.2 Help Seeking
When faced with a mental health difficulty, perceiving and understanding that there is a need for help relies on mental health literacy. Mental health literacy is "the ability to gain access to, understand and use information in ways that promote and maintain good mental health" (Lauber et al. 2005, Background section, para. 1). In a review of the mental health literacy and help seeking literature, Hunt and Eisenberg (2010) reported that awareness of the need for help is one of the most significant barriers to help-seeking; therefore understanding and promoting mental health literacy is essential.

Yorgason et al. (2008) argued that it is insufficient for information to merely be posted somewhere on the university’s website: universities should engage in improving awareness through commercial marketing techniques. Furthermore, access to counselling services should consider students’ time constraints during what is likely to be a time of heightened anxiety and stress (if they are experiencing difficulties). Given the likelihood that as symptoms of mental illness progress it is less likely that individuals will actively seek treatment themselves, it is important for universities to proactively promote mental health literacy and help seeking. As well as promoting mental health and counselling, ensuring students remain engaged with the university is also important; students not attending campus or classes due to mental health concerns are even less likely to actively seek services.

The literature indicates a general lack of awareness of on-campus counselling services and minimal uptake of these services by university students. Lack of awareness of services is another major barrier to seeking help (Hunt & Eisenberg 2010). Yorgason et al. (2008) surveyed 266 undergraduate students on the connection between their mental health and knowledge and use of university mental health services. Those most in need of assistance cited lack of time (9% of overall sample) as the reason for not seeking help, followed by lack of knowledge (6% of overall sample). When asked about future help seeking behaviour, the same responses were most prevalent: 33% of the sample cited not enough time as a major barrier, followed by lack of knowledge (25%). Given these results, the authors highlight the importance of easy access to counselling services.

Eisenberg, Golberstein, and Gollust (2007), in a survey of over 2500 undergraduate and postgraduate university students, noted that while 30% of students had perceived a need for professional help for a mental health or emotional problem, in the last 12 months, only 15% of students had actually sought help. Of those not seeking help, the most common reasons were believing that stress is normal at university, that they did not perceive a need for help, believing the problem would get better by itself, not having time, thinking "no one can understand my problems", and worrying about what others will think. The authors note that while the financial barriers to help seeking is generally not present in university student populations as on-campus counselling is generally free, there is still a significant gap between the perceived need for help and actual help seeking behaviour. Furthermore, the authors argue that improvements in access to counselling must be matched with efforts to improve mental health literacy, reduce stigma, and ensure adequate service provision once the student makes contact with the service.

1.3 Aims and Hypotheses

The aim of the study described in this paper was to investigate the role of integration as a predictor of attitudes towards help seeking over the course of the first year of study. University integration is a convenient predictor variable to examine, as it is a construct that can be targeted for change through interventions conducted across students and within the classroom. As discussed, students come to university with a variety of pre-existing attributes, some of which are not under the control of the university. Students develop mental health problems because of both university and non-university related issues. The institution is best placed to intervene in an area that is under its control, such as integration.
Based on a review of integration and help seeking research, it was hypothesized that expectations of integration at the start of semester would predict help seeking scores at the end of first semester and end of the year and that actual integration at the end of first semester would predict help seeking scores at the same time and at the end of the year.

2 Method

Participants

Participants were 241 first year students (73% female, mean age 20.92 years), enrolled in a number of programs at a single large urban Australian university. Figure 1, presents participant numbers at each time period. Only one significant difference was found between single and multiple responders at time one (Expectations of Staff Concern).

Materials

Academic and Social Integration Scales: a suite of five scales used to measure social and academic integration (Pascarella & Terenzini 1980), including: Peer-Group Interactions (7 items), Interactions with Faculty (5 items), Faculty Concern for Student Development and Teaching (5 items), Academic and Intellectual Development (7 items), and Institutional and Goal Commitments (6 items). The suite of scales was designed to test Tinto’s model of college dropout. Scale items are written in the past tense (i.e. it is expected that students will have already attended the university for a period of time). For the initial data collection, conducted at the beginning of first year, items were re-written to be future-orientated. A sample item is "During the upcoming academic year, do you think you will be able to do each of the following: Develop student friendships that are personally satisfying". The subscale "Academic and Intellectual Development" was omitted from the survey at the beginning of semester one, as items could not meaningfully be re-written to a future-orientation (for example, “My academic experience has had a positive influence on my intellectual growth and interest in ideas”). Response options are on a five-point Likert Scale ranging from 1 (strongly disagree) to 5 (strongly agree). Pascarella and Terenzini (1980) report acceptable reliability alphas for each of the subscales.

General Help Seeking Questionnaire: a scale designed to measure help seeking intentions for different problems and from different sources of help (Wilson, Deane & Ciarrochi 2005). The measure allows the researcher to specify the type of problem (depression, anxiety and stress were chosen as they are high-prevalence disorders found in university students) and the source of help (the university counselling service or an academic staff member were chosen as common sources of help). The scale asks "If you were experiencing depression, anxiety, or stress, how likely is it that you would seek help from each of the following people?" Items are rated on a 7-point Likert scale ranging from 1 (Extremely Unlikely) to 7 (Extremely Likely).

Procedure

Participants were recruited initially during face-to-face lectures in the first two weeks of semester in 14 different courses. Students were provided with the option of a paper based survey with reply paid envelope or a bookmark that provided a link to the online version of the survey. Course coordinators provided reminders to students and a link to the online
survey via the university's online learning system. Responses were collected over the first three weeks of the academic semester.

Participants who provided their student number were invited by email at the end of first semester to participate in a follow up online survey. This survey was a modified version of the first survey. Students were sent two reminder emails, and were able to respond over a one month period, which included the University's first semester exam period. Students were followed up again by email, using the same procedure outlined above, at the end of second semester. All students who completed the first survey and provided their email address were contacted, including students who did not complete the mid-year survey. Ethics approval for this research was provided by the University Human Research Ethics Committee.

Regression analysis was used to evaluate the predictive power of each integration scale in predicting subsequent attitudes to help seeking. Significant regression analyses were then calculated simultaneously to determine if any integration scale was uniquely predictive of subsequent integration.

3 Results

Initial analysis indicated a significant difference at each time point between the two sources of help seeking. Paired-Sample t-tests in Table 1 show that on a 7-point Likert scale, attitudes towards counselling help seeking was endorsed significantly higher than attitudes towards academic help seeking. The results are then presented in four parts.

Table 1
Differences between Academic and Counselling Service Help Seeking

<table>
<thead>
<tr>
<th></th>
<th>Academic Mean</th>
<th>Counselling Mean</th>
<th>t</th>
<th>df</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time 1</td>
<td>2.58</td>
<td>3.77</td>
<td>8.20</td>
<td>237</td>
<td>.000</td>
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<tr>
<td>Time 2</td>
<td>2.74</td>
<td>3.45</td>
<td>3.58</td>
<td>65</td>
<td>.001</td>
</tr>
<tr>
<td>Time 3</td>
<td>2.19</td>
<td>3.42</td>
<td>3.55</td>
<td>46</td>
<td>.001</td>
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</tbody>
</table>

**Time 1 predicting Time 2**

Table 2 shows the predictive power of each integration scale at Time 1 predicting help seeking at Time 2. While a number of scales were predictive of help seeking, only two scales provided unique predictive variance. Peer Interactions and Staff Interactions each uniquely predicted help seeking from an academic source, while Peer Interactions uniquely predicted help seeking from the counselling service.

Table 2
Integration Scales (Time One) Predicting Help Seeking (Time Two) (df=1,64)

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Predictor</th>
<th>r</th>
<th>F</th>
<th>Sig.</th>
<th>Partial Eta Squared</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic Help</td>
<td>Peer Interactions</td>
<td>.22</td>
<td>11.86</td>
<td>.001*</td>
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</tr>
<tr>
<td></td>
<td>Staff Interactions</td>
<td>.44</td>
<td>14.97</td>
<td>&lt;.001*</td>
<td>0.19</td>
</tr>
<tr>
<td></td>
<td>Staff Concern</td>
<td>.18</td>
<td>3.08</td>
<td>0.084</td>
<td>0.05</td>
</tr>
<tr>
<td></td>
<td>Commitment</td>
<td>.14</td>
<td>0.71</td>
<td>0.40</td>
<td>0.01</td>
</tr>
<tr>
<td>Counselling Help</td>
<td>Peer Interactions</td>
<td>.14</td>
<td>11.69</td>
<td>.001*</td>
<td>0.15</td>
</tr>
<tr>
<td></td>
<td>Staff Interactions</td>
<td>.32</td>
<td>8.07</td>
<td>0.006</td>
<td>0.11</td>
</tr>
<tr>
<td></td>
<td>Staff Concern</td>
<td>.29</td>
<td>4.25</td>
<td>0.043</td>
<td>0.06</td>
</tr>
<tr>
<td></td>
<td>Commitment</td>
<td>.09</td>
<td>0.36</td>
<td>0.55</td>
<td>0.01</td>
</tr>
</tbody>
</table>

*Unique variance

96
Table 3 shows the predictive power of each integration scale at Time 1 predicting Help Seeking at Time 3. Unsurprisingly, Staff Interactions uniquely predicted attitudes towards help seeking from an academic source, while Peer Interactions uniquely predicted help seeking from the counselling service.

Table 3
Integration Scales (Time One) Predicting Help Seeking (Time Three) (df=1,45)

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Predictor</th>
<th>r</th>
<th>F</th>
<th>Sig.</th>
<th>Partial Eta Squared</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic Help</td>
<td>Peer Interactions</td>
<td>.40</td>
<td>2.36</td>
<td>0.13</td>
<td>0.05</td>
</tr>
<tr>
<td></td>
<td>Staff Interactions</td>
<td>.44</td>
<td>15.47</td>
<td>&lt;.001*</td>
<td>0.26</td>
</tr>
<tr>
<td></td>
<td>Staff Concern</td>
<td>.21</td>
<td>6.00</td>
<td>0.018</td>
<td>0.12</td>
</tr>
<tr>
<td></td>
<td>Commitment</td>
<td>.11</td>
<td>2.66</td>
<td>0.11</td>
<td>0.06</td>
</tr>
<tr>
<td>Counselling Help</td>
<td>Peer Interactions</td>
<td>.39</td>
<td>7.93</td>
<td>0.007*</td>
<td>0.15</td>
</tr>
<tr>
<td></td>
<td>Staff Interactions</td>
<td>.34</td>
<td>3.40</td>
<td>0.072</td>
<td>0.07</td>
</tr>
<tr>
<td></td>
<td>Staff Concern</td>
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<td>0.19</td>
<td>0.67</td>
<td>0.004</td>
</tr>
<tr>
<td></td>
<td>Commitment</td>
<td>.08</td>
<td>3.18</td>
<td>0.081</td>
<td>0.07</td>
</tr>
</tbody>
</table>

*Unique Variance

Table 4 shows the predictive power of each integration scale at Time 2 predicting Help Seeking at Time 2. While many of the scales significantly predicted both forms of help seeking, no single integration scale provided unique variance in predicting either form of help seeking.

Table 4
Integration Subscales (Time Two) Predicting Help Seeking (Time Two) (df=1,64)

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Predictor</th>
<th>r</th>
<th>F</th>
<th>Sig.</th>
<th>Partial Eta Squared</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic Help</td>
<td>Peer Interactions</td>
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<td>12.38</td>
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<td></td>
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<td>8.52</td>
<td>0.005</td>
<td>0.12</td>
</tr>
<tr>
<td></td>
<td>Staff Concern</td>
<td>.35</td>
<td>9.12</td>
<td>0.004</td>
<td>0.13</td>
</tr>
<tr>
<td></td>
<td>Academic Growth</td>
<td>.45</td>
<td>16.57</td>
<td>&lt;.001</td>
<td>0.21</td>
</tr>
<tr>
<td></td>
<td>Commitment</td>
<td>.15</td>
<td>1.53</td>
<td>0.22</td>
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</tr>
<tr>
<td>Counselling Help</td>
<td>Peer Interactions</td>
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<td>8.83</td>
<td>0.004</td>
<td>0.12</td>
</tr>
<tr>
<td></td>
<td>Staff Interactions</td>
<td>.30</td>
<td>6.45</td>
<td>0.014</td>
<td>0.09</td>
</tr>
<tr>
<td></td>
<td>Staff Concern</td>
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<td>1.26</td>
<td>0.27</td>
<td>0.02</td>
</tr>
<tr>
<td></td>
<td>Academic Growth</td>
<td>.37</td>
<td>10.32</td>
<td>0.002</td>
<td>0.14</td>
</tr>
<tr>
<td></td>
<td>Commitment</td>
<td>.31</td>
<td>6.56</td>
<td>0.013</td>
<td>0.09</td>
</tr>
</tbody>
</table>

Table 5 shows the predictive power of each integration scale at Time 2 predicting Help Seeking at Time 3. While many of the scales significantly predicted both forms of help seeking, no single integration scale provided unique variance in predicting either form of help seeking.
4 Discussion

The results of the current study partly supported our hypothesis. Expectations of Peer Interactions (Time 1) uniquely predicted attitudes towards help seeking from both an academic source and the counselling service at Time 2, but only attitudes towards the counselling service at Time 3. Expectations of Staff Interactions (Time 1) uniquely predicted attitudes towards help seeking from an academic source at Time 2 and Time 3.

At Time 2 (Actual Integration), no individual scale uniquely predicted help seeking, although Peer Interactions, Staff Interactions, Staff Concern, and Academic Growth all individually predicted attitudes towards help seeking from an academic source at Time 2, and Peer Interactions, Staff Interactions, and Academic Growth individually predicted attitudes towards help seeking from an academic source at Time 3. Peer Interactions, Staff Interactions, Academic Growth, and Commitment individually predicted attitudes towards the counselling service at Time 2, while all five integration scales individually predicted attitudes towards the counselling service at Time 3.

The results suggest that any efforts by the university to promote the counselling service have not been able to change students’ attitudes towards help seeking. It does indicate that students were more likely to use the counselling service than seek help from academic staff. It is possible that attitudes towards help seeking from an academic staff member will be more influenced by perceived social norms than help seeking from the counselling service. Attitudes will also be impacted by previous interactions with individual staff members. The counselling service at the authors’ home university is discreetly located away from the main campus, where students can access services with greater anonymity. While this addresses issues of perceived public stigma, self rather than public stigma may be more of an issue for mental health help seeking (Golberstein, Eisenberg & Gollust 2009). Help from an academic staff member may be problematic if the student has ongoing regular contact with that person - perceived stigma will continue to exist beyond the help seeking encounter. Aligning student counselling more with each school or program, may also increase help seeking. Worryingly, willingness to seek help from either source was relatively low at the beginning of the year, and did not change significantly over the course of the year.

Students at each time point significantly preferred to go to the counselling service than discuss an issue with an academic staff member. There may be many reasons for this - it may be perceived that staff members do not have the necessary skills, concerns about confidentiality, and concerns that revealing a personal issue may negatively impact on
students' grades. Despite this, academic staff (and in particular tutoring staff) are likely to be more accessible to students for brief, informal support. Many front-line tutoring staff, those that first year students get to know and interact with the most, are often postgraduate students or early-career academics. While enthusiastic, they may not have the necessary skills to identify and intervene with disconnected students, or those with emerging mental health problems. While engagement and support at an institution level is necessary, those at the point of delivery must also be engaged and skilled in order to effectively improve. Simply adding another responsibility onto the list for academics and casual staff is unlikely to provide genuine buy-in. Tutoring staff may still be able to positively intervene just by providing academic support, given the correlation between depression and academic impairment (Heiligenstein et al. 1996).

As dropout rates are highest in first year (DeBerard, Spielmans & Julka 2004), students at risk need to be identified early, and proactively encouraged to attend support services. The results of this study indicate that those who are least integrated are also least likely to have positive attitudes towards help seeking. Those who need support most may therefore not be getting it. At present, we assume that students have sufficient knowledge about services, mental health literacy, and an attitude that does not include high levels of self-stigma, in order to seek help. This may be a big ask, considering that mostly, students self-refer to the university counselling service, and for those in distress, may be unlikely to be attending classes, let alone additional time spent on campus to address a mental health concern.

Intervening to improve mental health and wellbeing should be done initially at the program level and as part of the curriculum. Important too, that any intervention is seen as complementary to the core function of education and the production of successful graduates, rather than as an add-on service. Recognition is required that beginning students require more assistance, guidance, and direction than later year students. Help seeking is something that may initially require staff facilitation, both in the recognition of problems and where to go to address them. Second, students change in their level of responsibility and maturity through university. Telling students there is a counselling service and then leaving the responsibility with them to contact such a service may not be sufficient. Expecting students to reflect on their attitudes towards mental health and help seeking, particularly early in their university career, may also not be sufficient.

As students develop their sense of identity in their first year, building mental health literacy and help seeking into that identity can facilitate help seeking and address self and other stigma. For example, shifting the identity from "university students are smart and should cope" to "students get stressed, and sometimes need help" changes the identity of what it means to be a student, and also help seeking behaviour. This can be done at the institution level and reinforced at the program level. Recognising the messages we sometimes give students that go against this identity is important. Do we inadvertently suggest to students that seeking help is a sign of weakness or failure?

Rather than universities directly promoting the counselling service, the results presented here suggest that improvements towards help seeking behaviour could be achieved through programs aimed at improving student integration. Integration can be used throughout the year to address help seeking. It is not surprising that these variables are all inter-related. Change in one is likely to lead to a change in another. Up to this point though, integration has been largely seen as a variable in the teaching and learning literature. This research, however, provides evidence that integration is also a valid variable for discussion and use in the mental health literature pertaining to university students.

The results of the current study must be read in the light of one important limitation. Help seeking questions may be influenced by whether a person perceives a current problem. Although the question asks "if you were experiencing", some students may discount the
question if there is no perceived problem. Further they may not have ever given much thought to what help seeking might be like, or how they would react if a mental health concern arose. On the other hand, many people with a mental health concern spend considerable time contemplating help seeking and imagining positive and negative scenarios.

Although help seeking has been presented in this paper as an outcome variable, it could also be regarded as a predictor, and the research would have focused on how attitudes to help seeking at the outset of university life impacted on integration, and therefore subsequent academic achievement and retention. This is a suggestion for future research, however the current research is focused within the clinical psychology stream, and is therefore interested most in how to improve mental health help seeking. The rationale for selecting integration as the predictor (and therefore intervention-focused variable) is because this is where universities have the most control, and can implement change at the broadest level. The focus here is on identifying cost-effective areas that will have the broadest utility.

Future research in the area of integration and help seeking would benefit from following students over the course of their entire degree. In addition, following up with students as to their actual help seeking behaviour will further assist our understanding of how attitudes towards help seeking, actual help seeking behaviour, and integration relate. By doing so, we will have a more complete understanding of students' experience. Integration has benefits in the classroom, but may also assist students to seek help outside the classroom for issues such as mental health difficulties, and is therefore an important part of the services available that improve students' university experience.

5 References


Promoting individualism and retaining identity in mass higher education: academic advising for the 21st Century

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Abstract
In March (2012), a consultation exercise undertaken by a Scottish University identified the dimensions and process of academic advising across the institution. The outcome and output emerged as a new institutional model of advising. This paper explores the dichotomy of promoting individualism and retaining identity within a system of mass higher education, considers the dimensions of contemporary academic advising and reflects on the development of an institutional standard for practice.

Introduction
The United Kingdom (UK) National Union of Students (NUS 2011) report that personal academic advising is seen by many students as the cornerstone of academic progression and highlights a general UK wide dissatisfaction with both the quality and quantity. The NUS maintain that there is a clear divide between institutional provision and student expectation. The introduction of KIS (Key Information Sets) in Scotland (from 2012) will allow students to make prior judgements about the quality of student support before applying for a place at university, strengthening the argument for robust advising practice standards. In addition, the Higher Education Achievement Record (HEAR) will place emphasis on the 'above and beyond' element of student life, leading to an increased emphasis on transferability of work (paid or voluntary) and leadership activity undertaken during 'own' and term time. The publication in the UK (United Kingdom) of information on the standards of institutional learning and teaching combined with that of the student experience (expressed through the UK National Student Survey satisfaction scores) is a powerful argument for providing students with a 'best practice' approach to personal academic advising from the outset.

In March (2012), a consultation exercise undertaken by a Scottish University identified the dimensions and process of academic advising across the institution. The consultation involved key academic and support staff working in partnership with the University Student Association. The outcome and output emerged as a new institutional standard for practice; the 'GCU PPACT Standard' (Personal, Professional, Academically informed, Consolidated, Transitional). This new and innovative standard acknowledges that students 'learn at particular times and in relation to particular tasks' (Blirc et al 2011 p 561) and offers a contemporary approach to advising; grounded in reflection and focussed on academic, personal and professional growth and development. The development of the standard was supported by the work and outcomes of the QAA Enhancement Themes, specifically; Responding to Student Needs (2003-2004); The First Year (2005-2008) and Graduates for the 21st Century (2008-2011) www.enhancementthemes.ac.uk/enhancement-themes.

This paper explores the dichotomy of promoting individualism and retaining identity within a system of mass higher education, considers the dimensions of contemporary academic advising and reflects on the development of a standard for practice that is currently the focus of an institutional pilot and part of the HEA (Higher Education Academy) Change Project; 'What Works?' -Student Retention and Success Programme.
Personalising the student experience
An interim analysis of the 'What works' project undertaken by Thomas and May (2011) signals the importance of collaborative, student centred teaching and learning strategies to build academic and personal growth and allow staff to develop a better understanding of their students. HEI's (Higher Education Institutions) increasingly recognise the importance of developing interventions across the student lifecycle that take account of the academic, social and professional practice domains. Bliuc et al (2011) argue that a full understanding of academic learning is only possible if the social and personal dimensions of the individual student are taken into account. They maintain that we should broaden the accepted definitions of learning and adopt a rounder, more holistic view of the individual student experience, underpinned by the way students perceive themselves within the context of learning. Approaches to learning are therefore 'not seen as reflecting student characteristics but rather how students learn at particular times and in relation to particular tasks' (Bliuc et al 2011 p 561).

The 'Building student engagement and belonging in Higher Education at a time of change: final report from the What Works? Student Retention and Success programme' report (Thomas 2012) identifies 'belonging' as a key theme in student support, suggesting that it is closely aligned with concepts of academic and social engagement. At the level of the individual, belonging recognises; 'students' subjective feelings of relatedness or connectedness to the institution' (p12). Belonging in institutional terms may be arrived at through the students' sense of being 'accepted, valued, included and encouraged by others' (Goodenow 1993 p25). Osterman (2000) argues that satisfying the need to belong is related to the individual's engagement with the academic process and Kuh (2009) relates it to 'the time and effort invested by the student, levels of participation and contacts made as an undergraduate. The more connected the student is to the academic and co-curricular environment; the more likely they are to experience a sense of belonging (Andrew 2009' 2011).

Social and personal transition is highlighted in the literature (Whittaker, 2008). Blic et al (2011) suggest that by broadening out the literature to include social identity dimensions and the way that these dimensions influence student learning, we can gain greater insight into the student experience; career aspirations, learning patterns, engagement, motivation and commitment. Belonging is a complex concept and can occur on more than one level; at peer, discipline and increasingly professionally. Krause (2011) argues that learning occurs in a range of settings, within and beyond the formal curriculum, including the workplace and community settings.

Table 1: Creating a Community for Learning in Nursing: Implementing the Senses Framework in Undergraduate Nursing

<table>
<thead>
<tr>
<th>Senses Framework</th>
<th>Under-Graduate Application (Andrew et al 2011 p 358)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A sense of security</td>
<td>To have the emotional and physical demands of work and study recognised by academic and clinical staff</td>
</tr>
<tr>
<td>A sense of continuity</td>
<td>Continuous and integrated exposure to positive role models across academic and practice settings. Expectations of academic and practice achievement are articulated clearly and consistently</td>
</tr>
<tr>
<td>A sense of belonging</td>
<td>To be part of a learning community</td>
</tr>
<tr>
<td>A sense of purpose</td>
<td>To have a sense of the integrated academic/practice direction of pre-registration nursing</td>
</tr>
<tr>
<td>A sense of achievement</td>
<td>To be proud of and celebrate both individual and collective peer achievement</td>
</tr>
<tr>
<td>A sense of significance</td>
<td>To feel that you as an individual matter at both academic and practice levels throughout your course and preparation for practice as a registered nurse</td>
</tr>
</tbody>
</table>

In the original work by Nolan et al (2002), the Senses Framework is linked to respect for personhood, acknowledging that the individual is at the centre of a complex network of relationships with others. It is this concept of personhood that makes the sense of belonging such an important part of undergraduate support. Personhood underpins the framework and is described as the 'standing or status bestowed upon one human being by others' (Nolan et al 2004 p47). The research undertaken by Andrew et al (2011, 2009) demonstrates that a sense of significance is closely allied to a sense of purpose and belonging; students want to be recognised as individuals at both academic and social levels of engagement. Different senses are also rated as more important by students at different stages of undergraduate development. For example; a sense of security is not surprisingly seen as very important at the beginning of the programme and recurs at the end, just prior to qualification, as students faced the prospect of becoming registered nurses (Brown 2006). Although originally adapted for undergraduate nurses, the model has applicability across a range of disciplines.

In many respects 'personalisation' is now seen as integral to active participation and engagement in Higher Education; the embodiment of, the sense and experience of belonging. All the adapted senses in Table 1 speak to the need to be recognised as an individual and valued for your contribution in academic, social and professional arenas. Achieving this in a system of mass higher education is a challenge. Academic advising offers the opportunity for the institution to do just this and provide continuous personalised engagement throughout the student lifecycle.

Developing an institutional view of academic advising

The 'what works' report (Thomas 2012) found that students may not automatically engage with the institution, recognise the value of engagement, or have the immediate ability to engage. Institutions should provide a range of opportunities for engagement and these should be broadly reflective of their distinctive student population. This report recognises that the profile of students studying varies significantly between HEI's.

Glasgow Caledonian University (GCU) operates an inclusive approach to learning rather than only targeting support of ‘at risk groups’. The university has a strong social mission and is committed to access to higher education regardless of economic or social background. GCU has a commitment to access and inclusion and an excellent track record of widening participation, actively recruiting students from socially and economically disadvantaged
communities (34%), successfully engaging those who are ‘first in family’ (73%), mature students (49%) and those who transition and articulate from the college sector (18%). The GCU 'Work and Study' report (Anderson and Brown 2012) highlights that 90% of undergraduate students undertake paid work during term time and those from the most deprived areas work more hours than their peers. Often this work is not directly related to programmes of study. This financial imperative detracts from the time that students have to engage with the wider university community, their study and importantly the social and professional dimensions of university life. GCU is committed to improving retention especially that of students from the most disadvantaged backgrounds; care leavers and articulating students. There is up to a five percent gap between the progression of students from the most disadvantaged backgrounds and those that are not. This is a gap that the university actively seeks to address. GCU implemented a Transition and Progression Support Framework through the Moving Forward initiative (2008-2011); a restructured academic support framework in 2010-2011 through the establishment of Learning Development Centres in the three Schools and a Transition Support Road Map in 2011 which makes explicit the connections between central and school based support at various stages of the student lifecycle. Academic advising is identified as a key element of support within this Road Map.

In 2012, an institutional consultation exercise undertaken by GCU engaged a range of individuals from Academic Schools, Support Departments and the University Student Association. They were asked to reflect and comment on the purpose of advising and role of the advisor. The resulting findings re-enforced the primary purpose of the advising meeting as a dialogue between student and advisor about academic performance, however the need to broaden the definition of advising was identified, (a view mainly referenced to the current economic situation) reflecting the findings of Goodenow (1993), Osterman (2000), Kuh (2009) and Thomas (2012). In particular, the consultation highlighted that employability and career readiness should be addressed at an earlier stage in undergraduate studies than is currently the practice. Careers advisors also strongly recommended that advising should incorporate employability issues as priority, suggesting that there should be a greater emphasis on those aspects of career readiness that are not solely about graduate prospects, such as the transferability of work (paid or voluntary), co-curricular and leadership activities. Equally, the need to routinely integrate oral feedback into the advising process to engage students at a deeper level was highlighted, reflecting the recommendations of the NUS Charter for Personal Tutors (2010)

A high level of consensus emerged from the consultation. Academics believe that advising and the role of the advisor is pivotal to the development of the independent learner. Clear and specific advising guidelines are an imperative to enable a consistent and achievable approach across the university. Meetings between students and advisors should (ideally) take place once in every trimester (or term) and a planned and systematic approach, underpinned by reflection is highly recommended. The need for the meetings to reflect the flow of the academic year and the learner journey is also highlighted with key meetings scheduled at point of transition from year to year as well as directly after assessment periods. Ideally all students should have a named advisor who will, if possible, remain with them throughout their period of study. If a consistent approach is employed then a change of advisor is less detrimental to the process.

Lines (2010) maintains that the most effective form of student support is ‘concentrated and integrated; an approach that does not distinguish between academic and non academic units’ (p9). Contemporary approaches to academic advising need to be sensitive to socio-economic as well as academic factors. What students do (either paid or unpaid), the leadership they demonstrate and the transferability of any additional work will increasingly link with the HEAR (Higher Education Achievement Record). Students and staff therefore
will increasingly become aware of the importance of co-curricular activity and contemporary advising guidelines should reflect this.

'What works' for GCU
The key elements distilled from the consultation responses are highlighted in Table 2.

Table 2- Key Elements for Academic Advising

<table>
<thead>
<tr>
<th>Element</th>
<th>Action</th>
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<tr>
<td>Personal</td>
<td>P</td>
</tr>
<tr>
<td>Professional</td>
<td>P</td>
</tr>
<tr>
<td>Academically informed</td>
<td>A</td>
</tr>
<tr>
<td>Consolidated</td>
<td>C</td>
</tr>
<tr>
<td>Transitional</td>
<td>T</td>
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</table>

The elements identified above underpin the GCU (Glasgow Caledonian University) PPACT Standard shown in Figure 1.

Figure 1- The GCU PPACT Standard (Personal, Professional, Academically informed, Consolidated, Transitional)

Academic advising at GCU is currently part of the HEA 'What Works?'- Student Retention and Success change programme. The report; 'Building student engagement and belonging in Higher Education at a time of change' (Thomas 2012); clearly delineates areas of priority and highlights avoidance of labelling and targeting sub-groups of students when planning interventions to enhance progression and retention. This resonates particularly with GCU as Scottish Funding Council and institutional objectives serve to increase the recruitment and retention of students from the most deprived quintiles (MD20s) and articulating students, entering directly into the second and third years of a degree programme. Supported by the HEA, the GCU project team will, over a 3-4 year period, evaluate the effectiveness of the new advising standard as it rolls out across the university. A modified action research framework, characterised by cycles of implementation, reflection, evaluation and utilising a
A mixed method approach will be employed. Data will be collected qualitatively through student and staff focussed discussions and interviews and quantitatively through analysis of metrics such as programme progression, retention and attrition to inform and contextualise the qualitative analysis, re-enforcing the validity and trustworthiness of findings.

The new standard is focussed on student engagement and staff satisfaction within the wider context of the transition and academic support framework. It spans the student lifecycle (including key aspects of pre-entry) and encompasses academic, social and professional domains. It is underpinned by collaborative, student centred strategies designed to build academic, personal and professional growth. Crucially, it is designed to encourage academic staff to develop a better understanding of their students. It is a mainstream, proactive, collaborative academic intervention with a high degree of relevance to both students and staff. The philosophy underpinning the standard is the universities’ mission and determination to: ‘get it right’ at the beginning and to; ’keep it right’ throughout the student lifecycle.

References
Andrew, N., Robb, Y., Ferguson, D., Brown, J., 2011. 'Show us you know us': using the senses framework to support the professional development of pre- registration nursing students, Nurse Education in Practice 11, 356-359.


Thomas, L. (2011) *Can you afford not to have a personal tutoring system?* The Higher Education Academy, Online @:  


Shake up your wake up and go get ‘em!

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Abstract: A change to curriculum design at DJCAD at the University of Dundee has meant the experience and interaction of learning is more collaborative and non hierarchical. We are interested to share the experience of our learning approaches and demonstrate our increased confidence in communicating the role of design in society. While completing a 20 credit module, Co-design in Action, we worked with breakfast clubs at twenty Dundee schools, Dundee’s city council catering officer and a local farmer and committee member of the Home Grown Cereals Authority to create games that raise awareness of the importance of breakfast, eating locally grown foods and promoting a healthy diet. We were briefed to design games with children not for them. The games had to be exciting and fun to play, while connecting food and health with physical activity - "translating high ideals into a workable code of action“ (Sacks 2007) was a real challenge for us as individuals, and collectively in our design realisations. Working with co-designers under the age of eight was refreshing; they were honest, clear and direct in their comments directing the design outcomes to an end-point that we would not have reached without their creativity and knowledge.

Co-design requires designers to foster new skills (Fude-Luke 2007) so when we were approached to con-tribute to another schools health week after the completion of the module, we saw the opportunity to get experience communicating our design process and furthering the possibilities for our game. While confident our game had relevance and value, we recognised that it needed further development.

We propose to show through workshop activity, how the Good Dirt project and our game Perfect Plate, has empowered us as students, learners and co-designers to:

View collaborative learning as networking opportunities
Communicate the social impact of design to non designers
Consider the role of social capital in higher education

Introduction

As a group of Digital Interaction Design and Product Design students from Duncan of Jordanstone College of Art And Design (DJCAD) at the University of Dundee, we worked on a module named Co-Design in Action. It began with a simple brief, asking us to design an awareness raising game to encourage children to eat more healthily and think about where their food comes originates, from its source in the soil to its destination on their breakfast plate. It was required to be fun and engaging for children, focusing on physical activity and complementing existing games, resources and initiatives currently in place in local primary schools. Instead of designing for the children, we were asked to work with various groups: representatives from Dundee City Council, the Angus farming community, Tayside NHS, and the breakfast clubs from a number of Dundee primary schools. All these stakeholders became our co-creators in the design process, culminating in a selection of games produced by our class.

Our game, Perfect Plate, is designed to encourage healthy activity in young children through reinforcing their knowledge of the Food Standards Agency (FSA) plate, which we found to be widely used in schools, and demonstrates the food groups a balanced diet is made up of. Through early research and visits to the breakfast clubs, we found the children could tell us what each colour on the plate represented but struggled with understanding what foods went where, with little knowledge of where their food came from. Through an interactive process of iterating the game and taking it back to the children we improved the concept further, adding in additional activities resulting in a well rounded outcome. During our various sessions with the children, their understanding visibly improved, which demonstrated to us the positive effect we were aiming for could be achieved.

The game is played by two or more teams of children, with a board modelled on the FSA plate and a store of pieces representing different food items (the "barn"). Each team races
one member at a time to collect a piece from the barn and place it in its correct position on the plate. The winners are the team who all place a piece first. To ensure the game is educational a key aspect is to bring the children together after the game and check they understand why the foods are within that section of the plate, as well as asking them to point out any that were wrong.

**Co-Design**

After the module finished we were given the chance to take this project further, taking it to a new primary school to participate in their health week. Here we had the chance to continue the development of our game, completing a workshop with four primary school classes where we gave them a short talk and completed worksheets we had created as well as playing *Perfect Plate* with them. This experience was beneficial to both us and the children. We were able to teach the healthy eating messages we had spent so long working on along with gaining a whole new group of co-creators to improve our game. Throughout this project we as students were empowered to take our project beyond the confines of our module brief, and we in turn empowered the children to become young designers by providing us with meaningful contributions and suggestions for the game.

Creating a lesson plan to take to young children was a completely new experience for us and really tested our ability to tailor our communication approach. The project has been presented to all levels; young children, our peers, project stakeholders and an academic audience. Taking such a small project and developing it off our own back has improved our confidence in our work, as well as improving and developing our time management and teamwork skills.

For our young co-designers, it allowed them to work as a team, learn and exercise. As James Rock ex-plains, "Co-design is more than just consulting users - it's about getting their ACTIVE involvement in exploring, developing, and finalising the final solution to their problem - regardless of whether this is a product, service, etc. By getting hands-on will end users not only define the problem, but understand the process of delivering the final solution, and thereby will buy-in and embrace the change more easily." (http://www.designcouncil.org.uk/resources-and-events/designers/design-glossary/co-design/)

Their involvement in the creation and development of the game makes it more likely that we can have a long term positive impact on their lives, and empowers them to improve their own lives with informed choices.

**Social Capital**

One aspect our design aimed to manifest these choices through was 'pester power'. Parents may be famili-iar with their child's attempts to get something they want by continually asking, nagging until their parents agree to buy it. In our case, we tried to harness this to positive effect: give children the knowledge to make a healthy choice for their breakfast, and in turn help their parents make it happen. The choice to visit the fresh food aisle can have far reaching effects. If, as a society, we made better food decisions and ate better we would be generally healthier, resulting in fewer visits to the doctor and ultimately less money spent on healthcare. This is an example of how design thinking can generate social capital, and how design can make a positive contribution in areas beyond the traditional strongholds of visual design. Being able to think that we can contribute towards such a positive thing empowers us, and makes us want to empower others. It just shows how doing a little can result in a lot.

**Learning Styles**

Clearly, we want this knowledge to be as accessible as possible. *Perfect Plate* was designed to work with a range of learning styles. The VARK (Visual, Aural, Read/write, Kinesthetic) system of learning styles was codified in 1987 and has been of huge importance to the curriculum as it allows pupils and educators to identify their preferred way of learning (Fleming, 1992).

We wanted to ensure that every element of the VARK learning styles were incorporated into the game so anybody could learn from it.
Visual - the cardboard food pieces
Aural - verbal feedback after playing the game
Read/write - paper copies we made
Kinesthetic - the running/jumping active tasks given to get to the plate

Using these diverse aspects was hugely beneficial as it was evident that every child learned from different elements of the game. It was very important to us to make sure that every child was involved in every element, so as to get the maximum benefit possible.

**Impact of design on non-designers**

As well as gaining knowledge on healthy food choices, we gave them an opportunity to be a designer for the day. The excitement and energy from them in the process of developing the game was exciting to be part of. However, initially the pupils hadn't realised the impact design can have, and the opportunities that can arise from it. By the end of the day, we had some children talking about how they would love to be designers themselves. The way in which we got them involved was getting them to put their "designer hats on" and help develop the game and "co-design" with us. The results were even better than ones that we came up with ourselves and we have three years of university behind us.

With all of this in mind, it just shows the impact design can have on non-designers. Design has the ability to change society; help education and healthcare. It encourages creativity and this was evident when the children were co-designing. It gave them confidence and belief in generating good ideas and problem solving. It was humbling to hear that they would like to do our job when they grow up. It is promising to know from this that there could be a very bright future in the design industry with young creatives like these.

Working with the children was a great experience. Communicating with the children was a whole new ball game and we had to alter our approach to be more engaging and relevant to them. This meant leaving out all the dull facts and figures to do with the learning criteria and instead focusing on actually playing the game in an exciting way. With children as young as six years old, you need to present things in a certain way. Relatively simple vocabulary is required to avoid confusing them but you also have to talk to them in an engaging and enthusiastic way so that they are entertained. If the kids get bored, you lose their attention and it's difficult to get it back! The primary three pupils responded really well to the game as the difficulty level was just right for them, whereas the older kids found it easier and got distracted more easily.

The game we designed improved massively as a result. Working with the kids was extremely insightful as it taught us how children interact with these types of activities, with the people running it and also with each other. We were able to develop our game around this to make it more appropriate for them while keeping the core values intact.

The children made suggestions for ideas that with our grown up minds can easily be missed.

**Gamification**

*Perfect Plate* is an example of gamification, to help enhance engagement and bring an element of fun to the kids learning. Gamification, defined by Gabe Zichermann, uses "the process of game-thinking and game mechanics to engage users and solve problems" and is a concept becoming something of a society-wide trend. It turns mundane, everyday activities into opportunities to earn rewards such as points, rankings and status. People tend to be more motivated, engaged, and often achieve more in games than in the real world. Design a game that offers an environment designed to provide people with optimal experience and they will ultimately perform better and reap greater benefits. Aaron Dignan, author of Game Frame, cites the story of tennis player Andre Agassi. Agassi played a mental game of imagining the tennis ball machine as a black dragon spitting balls in an attempt to smite him. He did not hit 2,500 balls a day purely for fun, but by making the gruelling practice into a game in his mind and tying the game with his own real-life goals he was able to endure the training and make better progress. It makes sense: solving problems and achieving goals can be done more effectively and quickly if the process is made to be fun. Another great benefit of gamification is that it removes the fear of making mistakes: games are played for fun, and the fun comes from actions not having real-world consequences. Applying these principals of gamification to we can have a similar effect by
bringing an element of fun to what can be a boring subject, perhaps turning a weekend shopping trip with mum into a fun game in which kids try to identify healthy foods and get them on their plates.

**Networking**

As well as teaching children the importance of healthy eating and physical activity, this project was beneficial to our development as designers. Working with key stakeholders and the participating schools was, for most of us, our first time working on a project aimed at real people. It provided us with networking opportunities, meeting professionals in education and other fields. Research has shown that networking is a valuable skill in enhancing careers and in improving entrepreneurial success. Networking is the "building and nurturing of personal and professional relationships to create a system or chain of information, contacts, and support" (de Janasz, Dowd, & Schneider, 2002, p. 192). It helps individuals build social capital, goodwill that is created through social relations that can be mobilized to facilitate the attainment of needed resources, influence, and sponsorship (Adler & Kwon, 2002). Accordingly, because networking is so critical to the success of managers and entrepreneurs alike, it is important that educators give students the opportunity to improve their networking skills (Whiting & de Janasz, 2004). One of the best ways to foster skill development in the education process is to use experiential exercises that promote active learning (Marcic, Seltzer, & Vaill, 2001). These types of opportunities are extremely valuable to designers because they provide exposure. If you have an exciting new product or idea, the more people that know about it the better and the more likely it is to spread itself. Making new contacts and relationships is another key benefit of networking. Many people say that there is safety in numbers, and a constant rule of the job market is that it is not so much who you are, but who you know. Most hires are done through referrals, so the more positive and healthy relationships you have, the better off you will be in the job market overall. Perhaps the best outcome of networking, particularly for students, is the opportunity to learn. When people gather it is inevitable that ideas and information will be exchanged. There is always the possibility that you may encounter an innovative new concept that may well spark new and exciting ideas for your own work. After all, knowledge is power.

**Conclusion**

Although this module was taught as part of a design course, there is nothing to prevent students and educators from other disciplines applying many of the principles we have covered. What is often referred to as "design thinking" is not related solely to the fields that may spring to mind: graphics, furniture, websites, and so forth. Design is a structured approach to solving a problem which can be applied in almost any scenario.

In this case, empowerment was essentially mandated by the structure of the co-design process. Working with a wide range of stakeholders requires balancing their various needs, and inevitably different solutions will prioritise different aspects. Having the freedom to do so, without the danger of straying from a pre-scribed solution, gives students the freedom to do their best work.

Similarly, giving students the freedom to engage stakeholders on their own terms enhances the experience for both parties. The more students engage with their co-design stakeholders, the better their outcome is likely to be. Based on our experience, it is clear that letting students work on real issues with real people can improve the experience for all parties.

**Bibliography**


Giving students more to do: it's working for us!

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ABSTRACT: Students are empowered where they are given responsibility for their own development. Trying to create the environment within higher education institutions to support and promote this philosophy can be problematic. Universities invest time, resources and staffing in a variety of ways to develop projects and programme to enhance the student learning experience. But what happens when students are given the responsibility to do this for themselves?

While Morrison (2009) claims that making decisions about what they learn, how they learn and how they will be held accountable for their own learning will encourage students to be 'agents of change', universities are often restricted by curriculum, regulation and tradition. This paper explains how one university course has enabled students to devise their own development activities based on their identified strengths and development needs. These opportunities are student-led and encourage students to be leaders of learning. They allow students to enhance their university experience and the university experience of their peers by creating opportunities to develop their learning that are real rather than tokenistic (Sharp, 2009).

Building on a presentation at the Enhancement Themes Conference in 2012 which established the rationale, objectives, set up and early impacts of a student-led professional development society, this paper will discuss how this innovation by students for students has continued to impact the wider student experience. By promoting independent thinking, activity and learning the society has empowered students within their own course and helped them to engage with external bodies beyond the confines of the university. Designed for sustainability the society has created a model of professional collaboration, dialogue, development and learning which has been of interest to courses and universities in the UK and internationally. The model used is transferable across sectors and subjects and will be of interest to staff and students from all disciplines.

1 The student experience

In recent years the term 'the student experience' has become a powerful lever in the higher education sector demanding action from policy makers, government bodies, university managers and academics alike (Sabri, 2011). Intrinsically linked with the notion of the student as consumer, measuring 'the student experience' has become a way to assess quality of service and even value for money (Sabri, 2011; Staddon & Standish, 2012). While the traditional roles of teaching, research and knowledge exchange continue to command the attention and energy of universities, the discourse around the student experience increasingly impacts on all of these.

1.1 Measuring the student experience

In a bid to provide evidence of a quality product, universities invest in a range of ways to capture feedback from students about their experiences. In 2008 The National Union of Students (NUS) found in their first national survey focusing on the student experience that although 92% of respondents had been given the opportunity to provide feedback, only 51%
of those respondents felt that this feedback had been acted upon (National Union of Students, 2008). While Davidson and Young (2005) suggest encouraging feedback from students in order to gather ideas which can instigate change in their teaching and learning experience, higher education establishments have a history of collecting student views after students have participated in university programmes (Sharp, 2009).

Where this collection and collation of views is retrospective the benefits to the student who contributes are often minimal. Over time this can impact on the student's engagement with the feedback process. However, where student feedback is valued by the institution, and where the student providing the feedback sees the direct benefit of this process, there is evidence of increased engagement (Quality Assurance Agency, 2005).

Realistically where universities have been able to collect feedback from students within a period of study their ability to change curriculum content and delivery mid-term is often influenced by the long-term planning decisions the university has in place. Even in the longer-term, set curriculum content which has been scrutinised and validated by an institution, and perhaps by accrediting bodies or outside agencies, can be difficult to influence.

1.2 Enhancing the student experience

Sharp suggests that in order to enhance the process of using student feedback students need to be involved in enhancing as well as evaluating the curriculum, and that these opportunities need to be real rather than tokenistic (Sharp, 2009). The National Union of Students (2008) found that students showed a desire to be involved in informing and shaping course content but that this desire was not normally catered for within their institutions. The National Student Forum's annual report in 2009 suggested that institutions involve students in the design and management of their own education. They wanted students to be 'active partners' with the university and to be given sufficient opportunity to collaborate with academic staff in order to help design their own learning experience. The forum suggested that being involved in curriculum design and collaborating with staff would be a 'motivating and powerful' experience for students (National Student Forum, 2009).

However, Staddon and Standish (2012) caution that higher education institutions expecting students to be 'partners', 'experts' and 'agents of change' should be wary that this does not indicate a lack of confidence in their own ability to provide a quality learning experience (p.639).

In a drive to make better use of feedback, and in an attempt to enhance the student experience, universities across the UK have created a wide range of projects as part of the change agenda around enhancement. These projects are often designed to give students a voice and to encourage students to contribute to the development of their own university experiences. Projects range from encouraging academics to hear students’ voices in live events in order to listen to the real views of students and to move away from making assumptions based on surveys and questionnaires alone (Campbell, Beasley, Eland and Rumpus, 2007), to allowing students to become ‘agents of change’ through developing a democratic approach to education which includes the development of the curriculum where students make decisions about what they will learn, how they will learn and how they will be held accountable for their own learning (Morrison, 2009, p.113).

While co-construction of the university experience is believed by some researchers to be beneficial, to be valuable and to enhance the learning experience for the student (Campbell, Eland, Rumpus and Shacklock, 2009; Sharp, 2009) this method of engaging students and listening to their views is only useful when the feedback they are providing is being used to develop their learning experience and where the students can see the direct benefit of being involved in an opportunity like this. For this method of listening to students and using what is learned as a result to be effective, the culture in higher education needs to change.
(Campbell, Beasley, Eland and Rumpus, 2007). Giving students responsibility like this shifts the balance of power in an institution; it supposes that students have ideas to offer and requires the institution to make use of these ideas. This may mean a change in perspective for academic staff. Cowan (2006) suggests that it is the mark of innovative teaching to work in partnership with students and to make use of students' suggestions.

Sabri (2011), however, describes the range of initiatives across the higher education sector in the UK as 'a panoply of small-scale projects' and suggests that these projects have 'limited meaning beyond their local environment' (p. 662). While examples of these projects are many and varied there are often issues around longevity and sustainability. Like Barrie (2006) in his findings about projects designed to support the development of graduate attributes, staff involved in the development of projects to enhance the student experience can encounter apathy and resistance among their peers, and initiatives and projects organised by an individual or small group are often not sustained when that person or group is no longer involved, or when funding ceases.

Despite these issues Davidson and Young (2005) assert that students are in the best position to provide feedback on the overall educational experience because of their unique vantage point. Sabri (2011) suggests, however, that consultation of students does not usually take into consideration their previous experiences, be they cultural or socio-economic, or the capacities they bring with them to the university experience. There is an unsettling undercurrent in the discourse around the student experience that the student is waiting for more from the university, that the student is that passive recipient that Streeting cautions against when he entreats the higher education sector to see students as active participants in their own learning (Streeting, in Czerniawski and Kidd, 2011). Students come to university with diverse social, cultural and educational backgrounds and universities must learn to capitalize on this diversity. The higher education sector needs to consider the experience students bring to the post-compulsory stage of their education as well as seeing the student experience as something much wider than the taught curriculum and curricular content offered by universities.

2 Giving students responsibility for the enhancement of their own experience

2.1 The inception of a society to promote the student voice and enhance the student experience

While on a course that was highly evaluated by both internal and external stakeholders, students on the Bachelor's Degree in Primary Education at the University of Strathclyde were aware that the set university curriculum could not cover all the content that they would need across their professional career. They also acknowledged that there was no additional time to spend covering topics and areas of interest in greater depth.

Within the tight constraints of a validated degree programme that had been accredited by a professional body, the opportunities to develop projects to enhance the student experience within the course itself were small in scale and limited in impact (Sabri, 2011). Despite a desire from the course leader for greater use of student voice in the design and delivery of modules, the mechanisms to allow this to be any more than tokenistic required time for changes to enter the annual planning cycle or for more major changes to pass through university committees.

After being invited to be involved in one of these small-scale activities - a student ambassadors scheme designed to allow current students to work with candidates for the course - a group of year one and year three students decided to capitalise on that experience to develop a society to promote student professional development. The students had found the opportunity to work with other students across different years of study to be
an interesting learning experience. The group shared a common interest in their own professional development having attended a range of activities beyond the university and each having developed a professional learning network through this activity and through the use of social networking (particularly Twitter). The society was proposed with the aim of allowing students to pursue areas of interest or to investigate current issues within the education sector. Professional learning opportunities would be developed by the society and offered through workshops, seminars and peer-to-peer learning. These would be opportunities where students could learn from each other as well as offering learning and networking opportunities with others beyond the School, the Faculty or the University and within their discipline (in this context, Education).

2.2 Negotiating a partnership

In the first instance, the proposals were presented by the potential president and vice president of the society to the course leader. The society would be completely student-led. The course leader would have a facilitating role in supporting students in this endeavour but would take no role in the management or development of the society. These decisions were taken based on the course leader's belief that where the best possible candidates are recruited on to a course that is striving for excellence that the student body is capable of more than interacting with the university's notion of the set curriculum. Students are selected for this course on the merits of their academic achievement but of equal importance on the quality of a personal statement based on the candidate's experience, skills and commitment to their own development.

2.3 Designing a structure to support the development of the society

The student-led society was developed using a committee structure. This cross-year group committee ensured that all students on the course could benefit from this model of professional and peer-led learning. The composition of the committee was designed to ensure events could be planned in order to respond to the needs and interests of students at all stages. The following objectives were established to ensure the purpose of the society was clear:

To enable effective and relevant continuing professional development in the field of education through an engaging, innovative and unique approach.

To facilitate purposeful, contextualised, wide-ranging professional development in education; ranging from child development, approaches to learning and teaching, curriculum content and methodology, as well as wider educational issues and objectives.

To offer opportunities for professional dialogue and collaboration across courses, departments, faculties, disciplines and sectors.

To ensure effectiveness in meeting the core objectives of the society, and with a focus on sustainability from the outset, the leader of the student ambassador scheme took on the role as the first president of the Continuing Professional Development in Education Society (CPD Strathclyde). The president organised the founding committee into sub groups with a vice president leading each of the sub groups.

The president of the society would take responsibility for the overall leadership of the society. This role would include the coordination of the work of different subgroups in order to meet the objectives of the society; establishing and maintaining networks and relationships with academic staff within the School and Faculty and with professionals from across the education sector; and initiating and leading a regular process of reflection and review of the work of the society.

The Lead Vice President and Treasurer would take responsibility for the finances of the society; sourcing of sponsorship for large events; managing budgets; liaising with the university’s students’ association where necessary; and assisting the president in the regular process of reflection and review of the work of the society in meeting the core objectives.
The Education and Learning sub group would take responsibility for leading the process of researching and reporting back to the society on current issues and trends within the sector and for planning events based around the development needs of the student body.

The Communications and Research sub group would take responsibility for identifying the professional learning and development needs of the student body and communicating these to the committee. They would also maintain links with partner professionals across the sector and within the university, and maintain the society's website.

The Advertising sub group would take responsibility for creating and displaying advertisements of events (both within the university and across the sector) as well as disseminating key information to students, academic staff and professional partners.

2.4 Developing events and learning opportunities to enhance the student experience

The society would use a set process for facilitating learning opportunities for students and for professionals across the sector which always followed a series of steps. Namely:

- Establishing learning objectives or goals for all activities;
- Recognising and using wisely the challenge and opportunity of having complete autonomy over how and where objectives could be met;
- Keeping at the forefront of all planning the desire for a high quality learning experience for those involved in activities organised by the society in order for these to be relevant and purposeful experiences;
- Creating opportunities to build skills, knowledge, and professional networks.

Combining this process with the overarching aims of facilitating purposeful, contextualised, wide ranging professional development opportunities, the society, led by the committee, planned, organised and facilitated a range of events. These ranged from practical workshops and seminars to large TeachMeet conferences. Some of these were planned for students to network and learn from each other and others were planned for organisations, associations and professionals from across the sector to come together at the university to engage in informal learning opportunities with students and to share experiences and expertise.

2.5 Using evaluation and reflection to ensure a sustainable future

By combining face-to-face learning and networking opportunities with wide-ranging use of social media (Twitter, Facebook, blogs and the society's website) feedback on the opportunities the society was facilitating was almost instantaneous. Feedback from students, academic staff and professionals from across the sector was unanimously positive regarding content, structure and outcomes from the professional learning opportunities the society was facilitating.

"The CPD society creates opportunities for continuing professional development which are easy to access and participate in."
(Primary School Teacher, Glasgow)

"Every university should have a CPD society!"
(Professor Graham Donaldson, author of Teaching Scotland’s Future - Report of a review of teacher education in Scotland)

"Yeah, your CV is enhanced, but it is so much more than that. It’s about shaping education!"
(4th year B.Ed. student)

"[The CPD Society provides] the opportunity to meet, share good practice and discuss education issues with other professionals."

9 CPD Strathclyde Website – [http://www.cpdstrathclyde.co.uk](http://www.cpdstrathclyde.co.uk)
10 What is a ‘TeachMeet’? - [http://en.wikipedia.org/wiki/TeachMeet](http://en.wikipedia.org/wiki/TeachMeet)
(Dr Gill Robinson - Chief Inspector, Education Scotland)

The reputation of the society within the degree programme, School, Faculty, wider University and education sector began to grow at an unprecedented rate. National coverage in the education press and invitations for representatives from the society to take part in national education events, debates and radio interviews followed. This coverage was seen as recognition of the professionalism, capacity and agency of the society. It was also evidence of commitment on the students’ part to their own professional learning and a growing recognition across the sector of the standard of contribution that could be expected from students.

In order to sustain high quality experiences and outcomes beyond the initial launch of the society the committee hosted regular opportunities for students and academic staff to offer their contributions and ideas to the planning of professional learning opportunities. The Communications and Research team regularly collated and shared feedback on the work of the society.

The success in cross-sector collaboration and engagement with students, the enhancement of the student experience and the large scale development of key graduate attributes as a result of the work of CPD Strathclyde provided the students with much to reflect upon. To complement the on-going review and reflection mechanisms the president and lead vice president led a process of strategic review of the society at the end of the first full academic year. This was done in collaboration with the committee and with other interested students. The strategic review produced a succinct action plan for future development to be adopted and developed by the new committee during the following academic year. Consideration was also given to what had led to the successes of the society and how this could be used for the society’s future growth (Mills, 2011).

The key themes addressed in the strategic review were:

Overall success of the work of the society over the year - feedback, evaluations, recognition, impact.
Logistical working as a society - meetings, content, frequency and input.
Communications and research - electronic communication, dissemination of information and methods and resources used, including content, audience and frequency.
Advertising - methods and resources used, including content, audience and frequency.

Education and Learning Opportunities - relevance of planned events relating to the needs of students, gaps in learning opportunities and contemporary issues in Scottish education.

At the time of writing, the society has been established for almost two years. It continues to grow and offer professional learning opportunities for students in the School of Education at the university and for professionals from across the sector. The society continues to have an impact on the professional learning and development of the students involved in the running of the society as well as those engaging with the professional learning opportunities. An unexpected spin-off is the development of a wide range of one-off professional development opportunities and experiences being organised by students on the course who are not members of the society. This happened as students identified the benefits of being leaders of learning and of taking true ownership for their own learning and the learning of their peers.

3 Recommendations

Based on the experience of CPD Strathclyde the following recommendations are made for those interested in similar activity:

The university experience needs to be considered in its entirety

This development has allowed students to create learning experiences which are complementary to their taught programme (National Student Forum, 2009) and, in the context of this course, to their placement experience. Far from causing the course to question its confidence in its own provision (Staddon and Standish, 2012), the course has identified many benefits from the development of the society. In keeping with the findings of the National Student Forum (2009) it has found that students have been highly motivated by
the opportunities afforded by the society and by the opportunity to be leaders of learning. Staff have found this to be a powerful experience for students. The model presented in this paper suggests that universities can provide an excellent taught curriculum designed by academics using university systems and a range of evaluation techniques, while still allowing space, support and encouragement for students to plan, implement and evaluate learning experiences to enhance and augment this provision. University staff must acknowledge that the university experience is much more that the teaching and learning that is on offer from an institution. Universities must view the student experience in its entirety and, while making excellent provision for student learning and development, place the responsibility for getting the best from this unique experience with the student.

Student personal development is at the heart of this model

While the methodology behind the set-up, development and sustainability of CPD Strathclyde was very much a natural and organic process, it exemplifies how students can and have the desire to draw upon their own skills, experiences and capacities to demonstrate ownership of their own learning and development, even at the earliest stage of their university studies. Personal development planning is at the heart of this process. Students recognised their own strengths and used these to provide content for professional development activities but could also identify their development needs which allowed them to create links within the university, with outside agencies, professional bodies and wider learning networks. While Davidson and Young (2005) suggest encouraging feedback from students in order to gather ideas which can instigate change in their teaching and learning experience the authors of this paper are suggesting that this model is much more than that. CPD Strathclyde allows students to identify where they have strengths and development needs and to do something about these.

Students must set clear objectives and have a clear framework for making decisions

Central to this process are clearly stated outcomes and an easily replicable process for developing learning opportunities which the students themselves had developed. The regular opportunity to have a real audience of fellow students and professionals from across the sector encouraged students to consistently aim for a high quality product. To enhance sustainability the involvement in the committee of students from across the course is essential. The opportunity to work together, to share ideas and to learn from one another is important but the annual election of a committee from across the year groups means the work of the society is ongoing.

A systematic process for evaluating and reflecting on the society's progress has been instrumental in enhancing provision. Evaluating progress against the stated learning outcomes makes the process straightforward and transparent.

Academic staff must accept their role as facilitator

For this model to work, staff had to be willing to give students full responsibility for this kind of activity; students have to be willing to accept this responsibility and to take it seriously. While there is an assumption in much of the discourse that students are willing and able to accept this responsibility, the National Student Forum in 2009 acknowledged that there would have to be a change in the way students accepted any responsibility they were afforded (National Student Forum, 2009). The authors of this paper found that students involved in the development of this society were both willing and able to accept additional responsibility for their learning but also for the learning of their peers. Students recognised their own potential and this potential was supported by academic staff. Academic staff also challenged students to aspire to bigger and better ambitions while insisting that students continually strove for excellence. Student success was shared and celebrated by academic staff. Staff have had to re-think their ideas about the capabilities of students and the capacity of students to lead their own learning.

Conclusion
Cowan (2006) suggests the need for greater innovation as the higher education sector responds to radical changes in the delivery of higher education. McInnis (2001) suggests that addressing the need for greater student engagement requires the need for more creativity. CPD Strathclyde has enabled the students and staff at one university to demonstrate evidence of both innovation and creativity through a shared focus on enhancing the student experience.

While the approach to enhancing the student experience in some institutions still points to a model of permission and power, the students and staff involved with CPD Strathclyde have focused on potential and productivity. Where in some institutions students suggest ideas for enhancing their own experience but are beholden to the systems and regulations that are in the control of academic staff, the Continuing Professional Development in Education Society at the University of Strathclyde puts academic staff in the role of facilitator: championing and supporting a student society which has been developed to augment the curriculum and enhance the learning experience of the students.

These students are learning entrepreneurs supported by staff who encourage risk taking, who acknowledge the range of learning processes a student must engage with to reach set outcomes and who expect students to take the lead in decision making and problem solving (Elder, 2012). Giving students more to do has been a powerful way of enhancing the student experience.

References


Novice students' perception of learning in small groups

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ABSTRACT: Previous teaching experiences have led us to believe that group norm is a powerful instrument to encourage individual motivation, good study habits and goals. Students with weaker performance can benefit from collaborating with more motivated students. Students that have a shallow understanding of the subject can benefit from discussing with students who have a deeper understanding. In this study, we investigate how students perceive learning in teams, if they experience that working in a group helps them learn more efficiently. Our results form a basis for further improvements of group based learning as a teaching method and gives directions for further studies.

1 Introduction

At Uppsala University, novice computer science and IT engineering students attend an introductory course aiming both at getting them acquainted with their main subject and prepared for the challenges of higher education in general. The students come from different schools with different study cultures and their previous knowledge of the subject ranges from absolute beginners to rather advanced in some areas. In this unfamiliar situation, we believe that learning in teams can be a catalyst in forming new, efficient study habits that the students can benefit from throughout their education.

Introducing group work in the first course is also motivated since it is a required professional skill for engineers (OECD, 2005). We believe that working in groups and reflecting on the group's work help students become aware of group processes and how they, as individuals, can influence the group's performance.

In many ways, our work resembles Team Based Learning (TBL) (Team-Based Learning Collaborative 2012) where a method based on four practical elements is defined. Our groups are formed in the way TBL suggests and many of the activities performed in the groups fit the TBL description. We do not, however, follow all the steps suggested in TBL.

Throughout the course, various tasks and learning activities are performed within the group. The students are, in most cases, assessed individually, i.e., the purpose of the group is to be a unit of learning rather than a unit of assessment. In our work, as well as for TBL, the primary learning objective is "... to go beyond simply covering content and focus on ensuring that students have the opportunity to practice using course concepts to solve problems." (Michaelsen et al. (eds.) 2007).

During the course, the students are asked to reflect on how the groups work. The authors of (Cajander, Daniels & von Konsky 2011) report that letting students reflect on their own work, in addition to formal assessment advances the development of professional competencies such as group working skills. At the end of the course, students answer a questionnaire on how they perceive that the group has influenced their learning of various course topics. In this material, students express both benefits and problems that they have encountered. Many students also show that they can distance themselves from the group and see what is needed to improve the group's performance.
The results presented here can be used for further improvement of group based learning as a teaching method. It gives directions for further investigations such as how the use of social media and different assessment methods influence the results of learning in groups.

2 Background

This work has been conducted within the introductory course for Computer Science and IT-engineering students. The course is the first core subject course in the two study programs and aims at providing an introduction to the fields Computer Science and Information Technology and equipping students with skills needed to be successful in their studies as well as in the future professional life. Examples of such skills are study skills, communication skills, group working skills, etc. Another important goal for the course is to establish a common knowledge platform that future courses can take off from. Hence, the course has very broad but somewhat shallow contents and many students already know much of the course contents before entering the course.

The student group is homogenous when it comes to program selection but very diverse when it comes to background and previous experiences. Some students enter the programs directly after graduating from high school while others have worked for several years. When it comes to computer knowledge, some have lots of previous experience while others are beginners. The students also differ in cultural and academic background.

Course evaluations from previous years have shown that many students, although they think that the course level is quite low, struggle with the broad contents. They perceive that the course contains a lot of assignments that are not connected to each other. Many of the assignments are open ended, to allow students who already know the basics to go further and learn more, but the teachers have not been successful in encouraging these students to do so.

Since this is the first course of the study programs, it plays an important role in helping the students start developing their new professional identity. An important part is to make the students think and communicate about their core subject in a way that is productive, both when working with others and when presenting their work to those who are not involved. Another part is to establish study and working habits that will allow students to make the most of their education and to utilize the available resources in a productive way.

3 Course redesign

The structure of the course has been changed to address some of the issues described in the previous section. At the course start, the students are divided into working groups, which we call base groups, in which most of the course work is to be done. The students are assessed mainly through a series of assignments. The assignments are either group assignments or individual assignments that are presented to the other group members.

The teachers assign the base groups at the beginning of the course since "Research suggests that groups formed by self-selection are the least effective while diverse groups (assigned by the teacher) are most effective." (Smart & Csapo 2003). The size of the base groups is 5-7 students. Too large groups are avoided since this will have a negative influence both on motivation and on learning (Thelen 1949).

The groups are selected randomly except for the fact that most groups consist of students from only one of the two study programs. Some students never show up and some disappear during the course. Even though missing group members cause problems for the students that remain in their groups, our approach has been to help the remaining students
deal with this situation, rather than shielding them from it, since this is a situation that they are likely to encounter later on during their studies.

The broad course content makes it unavoidable to have assignments of various forms in the course and the teachers' previous experience shows that having regular activities such as presentations and deadlines help the students to keep working throughout the course. However, the base group had now become a constant factor in assignments throughout the course.

Since learning is now to be done in collaboration with the group, students with less prior knowledge in a certain area can benefit from the knowledge of other students. The group also serves as an arena for discussing course contents and thus giving practice in communication within the core subject. Students with more prior subject knowledge benefit from explaining their knowledge to others since it helps them in finding weak spots in their knowledge and they also get communication practice. At Uppsala University, the pedagogical program (Uppsala University 2008) states that students are to contribute to other students' learning. More precisely, students should "Give support to fellow students." and "As an experienced student, be prepared to contribute to newer students' learning."

We believe that working in groups can also have a positive effect on the students' study habits. They support each other in planning the work and if someone doesn't show up, this will have an immediate effect on the groups work. We also hope that students will discover that studying together is more fun and, in most cases, gives better results than studying alone. When something is hard, help is available.

Most student work, both theoretical and practical, is assessed orally. With the help of follow up questions, the teacher can create situations where the students can no longer rely on previously prepared answers but have to create explanations and solutions on the fly. Course evaluations show that students experience that they need to have a thorough understanding of course material to pass an oral assessment. Teachers experience that oral assessments make students more aware of what it means to understand contents and thus seem to encourage deep learning.

Being skilled at collaborating with others is a required learning outcome, both for the course and for the study programs (Uppsala University, Faculty of Science and Technology 2012). Hence it is important that the students are aware of the dynamics in the groups and that they understand how they can effect the groups work through their own actions. To highlight this, the students have lectures on group dynamics in the beginning of the course. The lectures emphasize that, in a group, you work with people that may be different from you, and that you need to be tolerant to people that do not see things as you do. They also bring up that you need to support, rather than judge your collaborators to bring out the best of the group as a whole. As a follow up, all students have to reflect on their own group and come up with three things that they can do to improve the work in their group. The reflections are done in the middle of the course to give the students a chance to make the improvements in practice.

3.1 Comparison to TBL

In many ways, our ideas resemble those of Team-Based Learning (TBL) (Team-Based Learning Collaborative 2012). We will now discuss some basic design principles of TBL and how they relate to our course design.

In TBL as well as in or approach, the students are divided into permanent teams of 5-7 students. In TBL however, the collaborative work is done in class. In our course design, the
groups had to work between classes since we aimed at encouraging this form of studies even in courses when working in groups is not required.

In TBL, as in our design, the students are accountable for preparation and team success. TBL implements this by letting the students give feedback to each other on how they contribute to the groups work. In our design, we have chosen to let the students reflect on their own work instead of giving feedback to other students.

In TBL, students work with complex problems that require the use of course contents. Due to the nature of our course, some students do not perceive the problems as very complex. We believe that this is a weakness since it doesn't fully let the students discover the benefits of collaboration.

4 Student perceptions

We have chosen to evaluate our design by analyzing how the students perceived that working in base groups affected their learning. The data used is student reflections on how the base groups work and a web based course evaluation. The course had 146 students divided into 25 groups. 122 students wrote reflections in the middle of the course and 57 answered the course evaluation at the end of the course.

4.1 The course in general

We will start by presenting the students' general perception of the course since this will have an effect on their perception of how useful the base groups have been for their learning.

Difficulty
The course aims at giving the students a common platform for further computer science studies. This means that, for students who have taken computer science courses in high school, the course level may be perceived as too low. The students were asked to grade the difficulty of the course on a scale 1-5 where 3 is just right. The average grade was 2.84 and the median 3. The perceived lack of challenge is likely to decrease how useful study groups are for students.

Relevance
Students were asked whether they thought the course contents would be of help to their continuing studies and future career. On a scale from 1-5, where 1 is not at all and 5 is "Yes, definitely", the students the average grade was 3.23.

Effort
The students graded their own effort to benefit from the course contents 3.15 on a scale 1-5 where 1 is "Not at all" and 5 is "To a very high extent".

Although many students found the course level to be low, only 55% of the students passed the course. We believe that this is partly because of the large amount of activities that are needed to cover the broad course contents and partly because the perceived lack of relevance and challenge reduces the effort that students put into passing the course. Another reason could be that learning outcomes such as study skills, e.g., keeping track of and planning for assignments, is a part of the course content that students struggle with, but these learning outcomes are not as visible to the students as those concerning computer science knowledge.

4.2 Collaboration in base groups
The results presented in this section are based on reflections on the work in base groups written individually by students. 6 of the 25 groups report that at least one group member is missing or passive and student reflections are missing from one or more members of 16 groups. In the following, all quotes from the reflections have been translated from Swedish.

The students were given the following examples of issues to reflect on
The roles of different group members
The level of participation, if all group members contribute equally to the work
If all group members are allowed to contribute equally, if they are listened to in discussions
What they could do to improve the group's work

Previous experiences

All students entering the course have expectations about what working in a group is going to be like, based on their previous experiences. Most of the preconceptions that were reported in the reflections were negative, e.g., students expected to have group members that would not contribute to the work or that would not listen. Some students were positively surprised just by the fact that the groups were more homogenous than their previous groups, simply because all group members have similar interests which is why they chose the same study program. Some examples are

"I experience that the whole group works all the time and everyone tries to do their best. When we work, we talk a lot and it feels like we are all alike."

"I must say that this is one of the best groups I have ever been in."

Other students report that their groups do function as they had expected.

"I will not try to hide the fact that everyone does not participate to the same extent, but that is unavoidable."

Participation

In some groups, the level of participation and contribution differs between group members. 18 students from 12 different groups have suggested that one of the things they can do to improve the group's work is to encourage other group members to be more active in the collaboration. One reason seems to be the dynamics between different personalities, some talk more while others prefer to listen and some are shy. A student describes that the reason that a fellow student is quiet is not lack of interest or knowledge by

"But I think he is shy because when I ask him what he thinks about things he usually has something clever or important to say."

5 students have suggested that they need to step back to allow others to come forward in discussions and another 8 students write that they need to listen more to others. 9 students have suggested that they need to come forward and be more active in discussions. When looking at the reflections group-wise, there is a large correspondence between how group members perceive their own participation in discussions and how other group members perceive it.

An example is one group where 4 out of 6 members have submitted reflections. Two of them report not taking the place that they should in discussions, one report trying to listen to everyone but that some of the others do not talk much, and one report getting carried away and talking too much. A quiet student in this group reveals wishing to participate more, but at the same time a fear of upsetting the balance in the group by
"I should dare to speak up when there is something that I don't agree with, rather than sit quietly and let the others make all the decisions. … It works great at the moment and it feels like you do not want to ruin the good cooperation we have now by letting selfish thoughts get in the way."

Another student, whose previous experience of working in groups is not to be able to take place in discussions, describes this experience by

"... everybody is helping out and asking about each other's opinions. … It feels like this experience is going to help me to step forward and contribute more in future groups and projects."

Other reasons for students not participating fully in the groups' work that are visible in this material are
Lack of interest in the assignments
Lack of interest in doing more than is needed to pass the course
Lack of interest in developing the group
Problems with communication

**Group norm**

Some groups report that they are very happy with the engagement of other members of their groups. Two different students in the same group report

"The discussions in the group have been rewarding and everyone have been participating all the time"

and

"We are all as ambitious, and being among ambitious people makes me even more ambitious."

These statements show that in this group, the group norm works as an encouragement for students to get the most out of the course. This is also the case in another group where two members state that

"Despite the short time that the group have been active, the collaboration has been unbelievably good."

and

"In all, I think that our group works well. Everybody is anxious to make the work proceed and nobody minds doing assignments as soon as we get them. … It is my impression that everybody wants to perform well, which makes everybody participate. I also fell that when you have questions, no one hesitates to answer them, as a matter of fact everyone wants to answer."

In a third group, one student states that

"Looking at our group, I feel that we care a lot about each other. We respect the groups' decisions, which makes it easier to work together."

Another member of the group has the following suggestion for improving the group's work:
"I can try to motivate the group to make a better job, because right now we only aim at a passing result."

Our interpretation is that this is a group that works well but where the group norm is to aim at passing the course rather than at learning as much as possible. It is our conclusion that the group norm is very important for encouraging students to go beyond the minimum and that we need to explore ways of working with the norm in groups where this doesn't happen spontaneously.

**Assessment**

An important learning outcome for this course is that students should be able to communicate within their subject. To encourage discussions within the groups, we have experimented with assessment forms that include explaining and discussing course contents. This is visible in the reflections as discussions is regarded as an important group activity, e.g., one students expresses that the group works well by

"We have had good discussions that have quickly lead to good solutions."

Another student shows this by reporting that

"At the seminar, I knew most of the answers, but I tried to let the other group members discuss the topics."

This student chooses to allow the other group members time to familiarize themselves with the topic and to reach solutions at a pace that allows them to gain a thorough understanding, even though, volunteering the correct answers, could have shortened the seminar.

**Passive group members**

Missing or passive group members is a source of frustration for remaining students, especially for those who are trying to improve group results by encourage other group members to participate. A way for teachers to reduce the frustration is to be clear about how far students are supposed to go in trying to support others, and when they have done enough. One group has reduced frustration caused by students not showing up for group meetings by '"selecting meeting times between lectures or in the afternoon when no one was too tired to come and study with the group".

**IT-supported collaboration**

Many of the benefits of studying collaboratively in teams have been investigated in settings where the teams do actually meet physically. The reality today is that there are many options that allow collaboration over the Internet. In the reflections from our course, 11 of the 25 groups mentioned that they use SMS-groups, 8 groups use Facebook groups, 5 groups use Google Drive and 2 groups use Skype. Even more groups mentioned using such tools as a suggestion for improving their work.

Some of our students report that, using social media for communication makes it easier for everyone to participate in discussions.

"All group members get heard through our Facebook group."

One group is particularly interesting in this context. According to the reflections, the group has never met face to face to work together, most of the work is done in Google Docs.
Several group members seem to struggle with finding their own and other members' roles in the group. One group member expresses that

"Because Google Docs is so impersonal, I do not think there is anyone who feels that it is not ok to express their opinions, we listen, (read,) reflect and provide feedback no matter who is expressing themselves."

The student continues by

"The disadvantage of Google Docs is that you can not quite get the feel of who one's group members are in real life. I have of course met all these people and talked with them about some different things, but it's not quite the same as working together so I probably can't really make out their roles in the group."

Another member of this group reports having trouble with connecting to the other group members, and not having the feeling of being taken seriously. This student expresses that

"If it had not been for Google Docs then the job would have been even more difficult! Thanks to Google Docs, all users can work concurrently and see what others are writing and ask if there is something that is unclear."

Our students find both advantages and disadvantages with collaboration over the Internet. Further investigations on the effects of this kind of collaboration, compared to collaboration face to face, on learning are needed.

| Figure 1: Course activities that helped learning |

**Effect on learning**

In the course evaluation, students were asked to mark the course activities that had helped them understand the course contents. The result is shown in Figure 1. Studying in base groups are ranked below the in-class activities, lectures, seminars and labs, but higher than the other out of class activity, reading course literature. On the question of how valuable, from 1-5, the base group has been for learning, the average rating was 3.89. 74% of the participating students rated it 3 or higher. Furthermore, 26% of the students met their groups both socially and for studying and 16% perceived that the base groups had helped their studies for the math course taken in parallel with the introductory course.

**6 Discussion**
We have found that the base groups can be of help for learning, but that there is a big difference in how well the different groups function. It is also obvious that more challenging assignments would have helped keeping the groups together as some students lost interest in the course because of the low course level.

In well functioning groups, with the desired group norms, students do not only perform well within the course, but they take advantage of the group in other courses as well. We believe that teachers have an important task in working on developing group norms that encourage students to perform more than the minimum requirements and that it is important that they support students in dealing with various kinds frustrating issues that arise. How these issues can be approached is an interesting question for further investigations.

Many students also have shown that they can distance themselves from the group and see what is needed to improve the group’s performance. This is an important step towards developing professional group and project working skills. Some of the assessment methods used in this work has also been successful in encouraging students to work on communication skills. Studying and developing more assessment methods and their influence on learning is also an interesting direction for future work. Finally, investigating how learning in groups that meet physically differs from learning in groups that communicate remotely is also an interesting extension of this work.

References


Uppsala University 2008, 'Teaching and Learning at Uppsala University - Guidelines for Educational Activity and Development'.

Rags 2 Riches
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ABSTRACT: It is now widely accepted in the literature that exposing students to real-life problems or simulations in class will promote student engagement and enhance deep learning. Our project, while currently run on a voluntary basis, requires students to solve a real business problem by way of a challenge in which student (and staff) teams compete against each other in a charity fundraising project. This requires students to apply their theoretical learning to a real-life situation, whilst using the competitive character of the challenge as a motivating force.

This paper describes and evaluates the CHILDREN 1st “Rags 2 Riches” fundraising activity, with emphasis on the learning and entrepreneurial skills gained by the students.

1. Introduction

The CHILDREN 1st “Rags 2 Riches” charity challenge took place in semester one of the academic session 2012/13. There were four student teams (one off-campus) and one staff team competing against each other. The task began with a "shop raid", in which the teams had a five minute slot to select stock from the basement of the local CHILDREN 1st charity shop. This stock had previously been donated to the charity shop by supporters of CHILDREN 1st and was a mixture of items that have never made it up onto the shop floor and old stock which the shop has been unable to sell.

The teams then had six weeks to first turn the stock into cash and then, secondly, use these profits as seed funds to generate more money via a strategy of their own choosing. This way, students are encouraged to use not only classroom knowledge, but also creativity to generate as much money for the charity as possible.

A pilot was run on a smaller scale in February and March 2012, student feedback was positive throughout except for comments about the timing during a very busy stretch of the academic year. Students felt that it was beneficial for them to work in a real-life environment to hone their skills acquired in the classroom. However it was also important for them that what they did actually "mattered" - it was real money they generated, and it was all for a good cause.

The aim in 2012/13 was to use the full-scale challenge to involve more students and to systematically evaluate the impact of such an extracurricular activity on student experience. Students (and staff) were asked to document their efforts, and feedback was collected at different stages of the project in order to assess the students’ experiences - their learning process, how they assessed their own effort and its success (or lack thereof), the team dynamics and possible pitfalls of the challenge.

Whilst we based our approach on hypotheses drawn from the current body of literature, the "hands-on" involvement in the challenge also enabled us to shape the final feedback collection in accordance with points raised by students at earlier stages of the process.
2. Background

With more school leavers now going to university to allow them to compete in ever more demanding and competitive labour markets, universities have evolved from straightforward providers of subject-specific knowledge to institutions that actively promote the development of employability in their graduates. Skills that future professionals need have now become more deeply embedded in university curricula.

This development is reflected in the two most recent Enhancement Themes formulated in the Scottish Quality Enhancement Framework (SQEF) - Graduates for the 21st Century (2008-11) and Developing and Supporting the Curriculum (2011-14) (QAA Scotland 2011). The University of Abertay’s own development of four distinct Graduate Attributes of developing Confident Thinkers, Flexible Collaborators, Determined Creators and Ambitious Enquirers within its Strategic Plans also reflect these Enhancement Themes and are conceived as the result of a well-rounded education (UAD 2011). The Strategic Plan further states that it is an explicit aim of the University of Abertay Dundee to

"... promote in our students an attitude of curiosity, independence and commitment to applying what is known to new contexts..." (UAD 2011 p. 8)

This ambition builds on the theory of experiential learning, as developed by David A. Kolb, (1984), which has at its heart the concept that deep and meaningful learning is best achieved by the practical application of skills.

As early as 1916, John Dewey argued that all individuals learn from their own experiences (Dewey 1916). While not a theory in the literal sense, the notion that direct experience is beneficial to learning persists. David Kolb (1984) formalises this notion in his theory of experiential learning, arguing that:

"the key to learning lies in the mutual interaction of the process of accommodation of concepts [...] to experience in the world and the process of the assimilation of events and experiences from the world into an existing concepts [...]" (Kolb 1984).

In other words, it is not sufficient to deliver only subject-specific knowledge to the learner; the learner needs to gain their own first-hand experience of the application of said knowledge to appreciate and internalise the concepts initially presented by the teacher.

Furthermore, Kolb transfers this general observation to the specific environment of education and attests that experiential learning aids the development of professional skills in learners, adding to their overall set of skills and capabilities. He transforms the concept of subject-specific education into a wider understanding of the learning experience by adding skills that are not necessarily only rooted in the knowledge of one’s own subject area. The implementation of innovative teaching methods, such as simulations, games and group work encourages enhanced learning.

In business education this is particularly important, as students will need not only theoretical knowledge in their future employment but they also have to be able to "feel" their way into how business works in real-life. Furthermore, many business-related degrees these days (including the ones at Abertay) put some emphasis on entrepreneurship and its importance in business; this not only includes starting a new business but also the spirit in which a company should be run. Entrepreneurship is different from Management, therefore teaching entrepreneurship differs from teaching management or business.

Where "traditional" business education has tended to concentrate on subject knowledge, teaching entrepreneurship emphasises the understanding of processes and student-centred, more experiential learning (Fiet 2001, Darling-Hammond, 2001 Cantwell 2001, Stevenson
2000). It is at this point that simulations, games and role-play become important in the process of teaching, as students are encouraged to draw together the various dimensions of their course of study and have to reflect on their existing knowledge (Alden 1999). By exposing students to a real-life business problem rather than a constructed classroom exercise (no matter how well designed it is), the students are given the opportunity to develop greater appreciation of role and responsibility (Freeman and Capper 1999) in that real decisions have real consequences, deadlines have to be met and failure is not merely a theoretical thought experiment.

Some authors (Neral and Ray 1995, Lowry 1999) make the point that introducing simulations into teaching can "enliven" the otherwise abstract subject matter and help students to relate to the material more easily. What would be remote theoretical concepts when taught in a traditional lecture-tutorial setup can, when directly related to students' individual, real-life experiences, become hands-on experiences that the students do not think of as "theory" (Neral and Ray 1995). Using simulations and games provides students with a real-life experience to share and relate to; something that mere real-world examples and case studies often fail to do, as students do not necessarily have the experiential background to identify with those examples.

Furthermore, simulations and games not only provide students with a more intense learning experience; they also contribute positively to the development of transferable skills, in particular communication and social skills. Most simulations (and many games) have an element of group work to them. This encourages students to reflect on their own and their team's strengths and weaknesses and to distribute sub-tasks accordingly. They require students to solve problems through analysis, synthesis and evaluation, all of which are considered "high-level" skills. Developing those skills in a real-life environment encourages "deep" learning. i.e. students will benefit from the experience much more than if they were "only" to study from a textbook in that the application of theoretical problems to real-life problems will let them internalise the subject matter far better and completely.

From a tutor's point of view, simulations and games are more work-intensive than a traditional approach to teaching. Preparing, running and debriefing simulations and games often need more time and effort. Some authors (Oberhofer 1999, Lowry 1999) have specifically pointed out the high costs involved in devising and running games and simulations. However, there is some evidence (Gremmen and Potters 1997, Rodgers 1996) to suggest that this initial investment of time and effort may well pay off with respect to the quality of the learner experience and the results achieved (where simulations are assessed). Given this extra cost to the tutor however, games and simulations and similar teaching techniques must be balanced carefully with more traditional approaches to teaching in order to maximise their positive impact. These techniques should not be used for the sake of doing them, but should be carefully placed within the structure of any programme to complement other teaching methods wherever possible and thus enhance student (and tutor) experience (Gremmen and Potters 1997).

3. CHILDREN 1st Charity

For more than 125 years CHILDREN 1st has been working to build a brighter future for Scotland's vulnerable children and families. In their own words:

"At CHILDREN 1st we listen, we support and we take action by delivering services in homes and communities across Scotland. We work to safeguard children and young people, to support them within their families and to help them to recover from abuse, neglect and violence. We speak out for children's rights and we campaign to change attitudes."
CHILDREN 1st run four services in the Dundee area, including the Dundee Supporting Families service. This service works to help vulnerable children who have been affected by substance misuse, family breakdown, abuse or neglect. The service aims to prevent exclusion from home, school and the community to strengthen families and help children and young people fulfil their potential. The Dundee Charity shop, on Perth Road, which is run and managed by volunteers, celebrated 20 years last year and raises over £36,000 annually for CHILDREN 1st.

4. Promoting the "Rags to Riches" Challenge

The "Rags to Riches" Challenge was promoted as an opportunity to put business skills into practice and to help build better futures for Scotland's vulnerable children and families.

The teams were each allowed 5 minutes to select stock from the Dundee CHILDREN 1st charity shop and to then explore how they might build their business from this stock. The students were advised that as long as what they did was ethical, legal and in keeping with the aims of the charity they could do anything to turn their stock into seed funding for their business and to build maximum returns over a 6 week business period.

Once teams had registered a launch event took place where students were provided with more information about the role of the CHILDREN 1st charity and some tips on how they might build their business. They were also reminded that this was a team project. As a team, the students needed to consider, issues such as:
- What products or services they were able to sell
- Who would take on the role of the sales manager?
- Who would take on the role of the marketing strategist?
- Who would take on the PR responsibility? and
- How would they go about identifying their customers
- How would they conduct a market analysis?

5. Student Feedback

As part of the project it was agreed that the staff team should meet up with some of the participants, after the completion of the challenge, to document experiences and thoughts. This constituted the qualitative evidence in support of the project. The following is a summary of this meeting:

All students were very pleased that they had participated in the project and had no reservations about doing it again. As this was a co-curricular activity, students commented that it had been 'hard work' primarily because the timing of the project was towards the end of Semester 1 and close to exam week. Another student suggested that the timing had been good as it was leading up to Christmas when people were more willing to spend money and sponsor charity events. Despite the timing, the students had thoroughly enjoyed their experience and the fact that they could apply knowledge and skills that they had acquired during their studies to a challenging real life situation.

The students agreed that the most valuable outcome for them was the realisation of how important it was to plan their work. They acknowledged that they had to organise fund raising activities at a time when other big charity initiatives were under way and thus competing with them. They approached this task with great enthusiasm and one of the groups had decided to have a car boot sale to generate funds from their "haul" from the charity shop and use this to support other fundraising activities, such as organising a Christmas Fair in Perth. The group managed to secure donations towards prizes, venue, catering and advertising and, overall, they concluded that at the end of the event they had a great sense of success and achievement.

Students were asked what they thought they had learnt from the activity. They responded that if they had to participate in the event again, they would organise the Christmas Fair at
the University as the footfall would be much greater. In terms of skills, they commented that they had to develop good team working skills, delegation and networking. It had been a great experience to participate in a small enterprise event, starting from scratch and turning it into cash for other peoples benefit, where they had to apply project planning and management skills. The students felt that their employability skills had been enhanced by taking part in the project and they were very pleased that they could include such initiative in their CVs. They considered that this would be an advantage when applying for jobs in the future. Persistence, support for each other, understanding own and teams' strengths, thinking "outside the box" and using these skills effectively and coping with rejection had all been very useful qualities and skills that they had developed as a result of taking part. Learning to cope with rejection had been a particularly useful experience since this was something they thought they would encounter in future personal and professional life. They had managed to develop confidence and self-belief through reflection on their experience. Students were also asked to assess their own effort. They responded that they had put in a great deal of effort in the competition. They had enjoyed the competitive nature of the activity, which had helped to maintain their enthusiasm. They understood how easy it might be for participants to "run out of steam" however the competition gave students the opportunity to see how far they could push and challenge themselves and had taught them the importance of dedication. The venture could only be successful if they remained motivated and focused.

One student said: "It was great to use our acquired business acumen practically and do something good for others at the same time".

Many teams indicated that their motivation in the 2012 challenge was to "beat last years' winners", which was the staff team. One of the teams did do this and deservedly won the challenge for achieving the highest funds for the event so far.

Some students suggested that if the competition is to be run again, then they would be happy to act as mentors to future teams. They felt that the challenge was difficult to start with but once they had a clear idea of how to take the task forward then it was much easier to plan and achieve the objectives set. A mentorship programme would be a good way of providing support for future teams.

6. Feedback from the Charity

Matthew Middler, A Senior Fundraiser at CHILDREN 1st, commented: "This is the second year of the challenge and we have seen some really unique and creative ways in which the teams have turned their stock into large profits. The teams have exceeded last year's total by a big margin.

It is great to see Abertay University and our shop volunteers working together to each other's benefit. The children and families we support in Dundee will really see the benefit of this."
7. Conclusion

It is clearly evident that the students found the experience to be challenging, yet extremely rewarding. They were exposed to aspects of business that they would not have gained in a classroom environment. The students undertook this year’s Rags to Riches challenge with great enthusiasm, keeping their tactics secret from the staff team! This is a “win: win” opportunity with everyone gaining - the students enhancing their innovative skills and applying these in a real-life business challenge to raise funds for CHILDREN 1st.

The total sum raised in 2012/13 was £965.40 through a variety of events and fundraising activities. Next year the challenge will be to beat this target and to observe students using their skills in a wide variety of entrepreneurial ventures with the support and encouragement of the staff involved and the experience of those who have previously undertaken the challenge.

References


Stevenson, H.H. 2000. Why entrepreneurship has won, USASBE, Coleman White Paper

A dialogical practice using social and environmental reporting as an educational tool for knowledge creation

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ABSTRACT: The main objective of this article is to analyse social and environmental reporting as a tool for enhance teaching and learning at higher education. This research provides two different but complementary contributions. First, we analyse social and environmental reporting using the organizational knowledge theory in order to evaluate and understand how this activity helped to enhance teaching and learning. Secondly, we evaluate how engagement between students, members of staff and other external organisations could contribute to dialogical approach to social and environmental accounting. As a teaching and learning practice, the social and environmental reporting was not only perceived as a good initiative to develop the awareness of social and environmental matters but it also equipped students with communication and employability skills. Moreover, social and environmental reporting provided a space for students, academics and members of staff at administration to understand and improve the initiatives on social and environmental issues.

1. Introduction
This article contributes towards a real experience on teaching and learning on sustainability using university campus as an example. Previous studies combined these two issues by exposing students on to real experience. For example, Bardati (2006) explored environmental audit as a tool for establishing synergizes in active learning and management approaches to promote sustainability in university campuses. Our study explores a particular case of a teaching and learning experience involving the production of social and environmental reporting (SER) by students and their engagement in a dialogue with different individuals/organizations.

Our research contributes to the literature in two different but complementary ways. Firstly, it explores SER as a practical tool for teaching and learning. Secondly, this article also contributes to the dialogical approach to SER. The importance of this analysis lies in the fact that a practical experience on the dialogical approach to SER may tell us of the abilities of participants and the difficulties they have during the different stages/forms of communication. We use the theory of knowledge creation to identify the possible strengths and failures of a dialogical approach when it is used to promote changes in an organizational context.

This paper is presented as follows. Firstly, we describe the main concerns for sustainability in higher education. Secondly, we explore the dialogical approach to SER as an emancipatory instrument for education. Thirdly, we adapt the theory of knowledge creation to analyse how the dialogical approach to SER created knowledge and transferred it between different parties within the university campus. Fourthly, we present our research methods and methodology of collecting and analyzing feedback provided by students and members of staff. Finally, we present our results and final comments.

2. Sustainability in higher education
The literature on sustainability in higher education can be analysed using two different approaches. The first approach explores teaching and learning practices related to sustainability issues (Brundiers et al., 2010, Cotton et al., 2012). The second approach studies the development of sustainability issues at the university campus (Brinkhurst et al., 2011, Fonseca et al., 2011, Lozano, 2011).

Regarding to teaching and learning, Cox & Ingleby (1997) showed the inclusion of sustainability in higher education has not been an easy task. There are different types of barriers to overcome (Cox and Ingleby, 1997). For example, changes on sustainability have been proven to emerge largely from the ‘top-down’ or ‘bottom-up’(Brinkhurst et al., 2011).
One possible alternative method to get middle ground academics involved in sustainability issues would be a combination of class based and real-world activities (Brundiers et al., 2010, Benn and Martin, 2010, Collins and Kearins, 2010). The development of sustainability issues in the university campus can be considered as a second approach explored by the literature on sustainability in higher education. Information on sustainability is meant to be one of the main drives for changing practices in the university campus (Fonseca et al., 2011). Thus, producing sustainability reports seems be a good opportunity for universities to communicate their efforts to stakeholders (Lozano, 2011, Fonseca et al., 2011). However, less than 30% of universities provide reports on sustainability issues (Fonseca et al., 2011, Lozano, 2011). Our research explores these two approaches in the literature by evaluating a practical exercise where students produce SER for their own university. In the next section, we explain how SER can be implemented as an effective and emancipatory pedagogical tool for social and environmental accounting.

3. Social and environmental reporting as a pedagogical tool

Dialogical approach of education involving SER is built in order to develop a critical perspective of a reality which enables participants to liberate themselves from the conventional status quo (Bebbington et al., 2007). Thus, a dialogical perspective on SER tend to avoid the static approach of conventional accounting which is focused on financial and short term concerns (Bebbington, 1997, Brown, 2009). For this reason, a dialogical approach to SER is also considered to be emancipatory (Thomson and Bebbington, 2004, Thomson and Bebbington, 2005, Dillard et al., 2005, Brown, 2009).

In this approach, it would be difficult to identify who is the teacher and who is the student. This is because both parties are expected to interact equally in the teaching and learning process (Bebbington et al., 2007). However, the level of interaction would depend on the interest that each participant has in SER. Thomson and Bebbington(2005) argue that individual interests in SER can be developed by education (Bebbington et al., 2007, Adams and McNicholas, 2007).

We emphasise on the dialogue as being one of the most important tool for sharing and capturing the knowledge that is normally not included in SER (Bebbington et al., 2007). We support the idea that this particular knowledge is individual to each participant (Georgakopoulos and Thomson, 2008). Moreover, this type of knowledge combines not only the individual’s interpretation of the world and the way participants choose to conduct themselves but it also involves the individual's own experiences in relation to an organization (Bebbington et al., 2007). The extent to which participants share this individual and unique knowledge depends on the level of interaction within the dialogue process (Thomson and Bebbington, 2005).

In our view, the degree of dialogical interaction between organizations and stakeholders depends on how these parties are able to set and discuss a common objective (Bebbington et al., 2007). We understand that each stakeholders and organizations has its own agenda (Adams and McNicholas, 2007). Thus, participants need to explain clearly what their objectives are in establishing the dialogue and how these objectives can be linked in a common interest (Dillard et al., 2005). A level of professionalism and respect among participants is crucial for the quality and continuity of the dialogue, education being essential to achieve these conditions.

In the next section we will concentrate on notions of knowledge transfer.

3. Organizational Knowledge Creation Theory

The knowledge creation theory highlight the existence of two main types of knowledge: Explicitly and Tacit (Nonaka, 1991, Nonaka, 1994). Explicitly knowledge is that which can be the formalized in writing or figures (Nonaka, 1991, Nonaka and von Krogh, 2009, Nonaka et al., 2006, Nonaka, 1994). Tacit knowledge is personal and it involves, for example, senses, intuition and practical experiences (Nonaka and von Krogh, 2009, Nonaka et al., 2006). Tacit knowledge is shaped by individuals’ own skills, perspectives and believes, so people take for
granted that this knowledge exists. That is the reason why it is so difficult to explain and articulate (Nonaka, 1991, Nonaka, 1994).

In this paper, we suggest that these two types of knowledge are also part of dialogic the approach to SER. The quality of SER depends on how these two types of knowledge are integrated. For example, Thomson and Bebbington (2004) highlighted that in a dialogical approach to SER different kinds of knowledge are transferred as part of an educational process. They emphasise on the transfer of a common understanding about the world that, from our perspective, can be categorized as Explicit knowledge. However, they also highlighted the existence of other types of knowledge that in our views could be qualified as Tacit knowledge, such as the personal understanding of the world and how people choose to conduct themselves (Thomson and Bebbington, 2004, Coulson and Thomson, 2006).

By analyzing the differences between Tacit and Explicit knowledge the theory of knowledge creation suggest four modes of knowledge. In the table 1, we suggest an adjusted interpretation of these modes of knowledge creation to include dialogical approach to SER. We understand that the four types of knowledge creation complement each other and are part of a continuous dialogue that involves teaching, learning and change (Nonaka and von Krogh, 2009, Thomson and Bebbington, 2004, Thomson and Bebbington, 2005, Bebbington et al., 2007, Nonaka et al., 2006). Moreover, we suggest that process of knowledge creation in SER context happens by the constant exchange, implementation (put in practice), experience and internalization (becoming routine) of Tacit and Explicit knowledge (Nonaka and von Krogh, 2009, Nonaka, 1994, Szulanski, 1996).

Table 1: Adaptation of patterns of knowledge creation to SER

<table>
<thead>
<tr>
<th>MODES OF KNOWLEDGE</th>
<th>DESCRIPTION</th>
<th>RELATION TO SER</th>
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<tbody>
<tr>
<td>SOCIALIZATION</td>
<td>From tacit to tacit knowledge. Individuals learn tacit skills from each other by observation, imitation or practice.</td>
<td>Production of SER thought, interactive communication and reflection about the world. This process is not formalized in SER.</td>
</tr>
<tr>
<td>COMBINATION</td>
<td>From explicit to explicit knowledge. Combination of different explicit knowledge to create a new knowledge.</td>
<td>Production of SER by putting together different types of explicit knowledge that exists internally or externally to the organization.</td>
</tr>
<tr>
<td>EXTERNALIZATION</td>
<td>From tacit to explicit knowledge. Individuals are able to formalize their tacit knowledge.</td>
<td>Individuals are able to express their own experiences and interpretation of the world into SER.</td>
</tr>
<tr>
<td>INTERNALIZATION</td>
<td>From explicit to tacit knowledge. Individuals use pre-existing explicit knowledge existent and shape it with their own tacit knowledge.</td>
<td>Individuals are educated with a common understanding so they can interpret SER using these concepts, but the individual shapes them with his/her own experiences of the world and ways of conduct.</td>
</tr>
</tbody>
</table>


4. An experience of knowledge creation using SER

In this section, we will describe a piece of coursework implemented in the 2011/2012 academic year in a module entitled Social and Environmental Accounting. This course was designed for second year students at a Scottish University. The analysis in this study
concentrate on the academic year 2011/2012 when the total of students enrolled in the module was 59 students. The assessment in this course comprised of 30% of coursework and 70% of final exam.

The coursework was divided in four steps: (1) students were required to produce a SER for their own university in groups of 5-6 members; (2) students were also asked to make recommendation to the university for improvements on social and environmental practices; (3) students also needed to present the SER they produced for an audience; (4) at the end of the presentation, students were engaged in a dialogue with members of the audience. We believe that each of these steps can represent a mode of knowledge creation and we will explain each one of them in more details in the following paragraphs. We will also build our case on the SER literature discussed in the previous sections of this paper.

Social and environmental report. In order to gather evidence for the report, the course coordinator asked for information from different parts of the university, such as human resources, registry and estates. Information external from the university was also gathered. We categorize the elaboration of the SER as a 'combination' mode of knowledge creation. This is because students were responsible for creating Explicitly knowledge, represented by the SER using Explicitly knowledge from different areas inside and outside to the university. According to Thomson and Bebbington (2004), within the report, students formalized what they knew about the world and in this specific case, about their university.

Recommendations. This is the phase in which students had the individual opportunity to recommend how the information analysed while producing SER could be improved. We understand that the recommendation offered a space for students to work on the 'externalization' mode of knowledge creation. This is because the students could formally express their 'know-how' as being a student in the university and how they perceived university's practices regarding social and environmental issues. The recommendations have an emancipatory dimension and we understand this step as the moment where students could liberate themselves by formally articulating their own experiences (Dillard et al., 2005, Thomson and Bebbington, 2005).

Presentation of SER to an audience. Each group had a 15 minutes slot to present their SER in front of audience. The audience consisted of students taking the module, lectures in Accounting and Management, a member of staff from the Careers Service, a member of staff from Estates and a member of staff responsible for the University Enhancement Group. There were also two members external to the university: The head of the 'transition' organization and an employee of Standard Life, which together with the University Enhancement Group (funds from Higher Education Academy) provided a prize for the best SER produced by students. The presentation can illustrate the 'internalization' mode of knowledge, as students presented their slides while providing their own comments and perspectives on different topics. Students could share their own experiences within the SER production and as a student. As such, we also perceive this stage to be part of the dialogical approach of SER which provided students with the opportunity of an interactive communication and reflection about the world in order to transform it (Thomson and Bebbington, 2004).

Dialogue with the audience. At the end of the presentations students had the opportunity to engage in a dialogue with the audience. At this stage, students had a chance to a question and answer session for about 10 minutes. This part of the coursework opened the floor for the 'socialization' mode of knowledge creation. The face-to-face dialogue provided a space where both, students and other members of the audience could learn from each other. They shared their own experiences, perspectives, skills and intuitions. In our view, this part of the coursework adds another complementary dimension to the dialogic perspective of SER. In the language of Thomson and Bebbington (2005), all the participants involved in the dialogue were students and teachers. They all shared their understanding of the world and in it.

5. Methods and Methodology
This article includes the three types of feedback suggested by Hounsell (2009) in order to avoid bias and allow triangulation. These feedbacks were collected using different methods. The students’ feedback was gathered in order to explore how students perceived the coursework to be contributing to different employability skills. A questionnaire with a list of 19 different skills was provided to students. Coursework contributions toward these skills were evaluated using a 5 likert scale (Excellent, Very Good, Good, Poor and Very Poor). The students’ questionnaire also presented an open space for any comments that students may wished to provide. The second source of feedback was a questionnaire to the members of staff who had participated on the panel during the group presentations. This questionnaire comprised of four open ended questions on their perceptions of the coursework. The questionnaire was sent via email after the presentations. The third source of feedback was self-generated by the course coordinator and other members of staff involved on coursework design and execution. This feedback included individual perceptions and reflections on the coursework as a real-world experience for teaching and learning practices.

6. Results

6.1 Students’ feedback
The level of response to the questionnaire was 24 students, which represented 46% of the students who had submitted the coursework. The questionnaire filled by students had a list of 19 different skills. The graphic 1 shows that the vast majority of students evaluated the coursework as an excellent or very good activity for learning about different aspects of the subject matter such as, social and environmental accounting, corporate reporting, corporate social responsibility, environmental issues and social issues. In addition, 95% of students agreed that the coursework had helped them to learn more about their own university. In addition, most students (87%) found the coursework useful in terms of learning more about other organizations’ corporate social responsibility. The vast majority of students also found the coursework to be a valuable activity for experiencing brainstorming, conflict resolution and work load distribution. Finally, vast majority of students positively evaluated the coursework in terms of helping them to develop skills in presentation, discussion, research, writing and thinking critically and creatively. The average mark for the coursework was 65%.

6.2 Feedback from members of staff
The questionnaire comprised of four open questions. For example, one of the positive points highlighted was the opportunity of engaging in a dialogue with students.

‘This was a positive experience for all involved. It gave students an opportunity to work with real data about an organization with which they are involved. The university will benefit through a better student understanding of their operating environment. It gave staff an opportunity to interact with students not regularly available to them.’

‘It gave a very comprehensible overview and analysis of a wide range of factors and made staff and students think about which areas the university excels in and which areas we could further improve. Greatly increased students knowledge and key employability skills.’

The coursework also seemed to impact at a personal and professional level among the members of staff. This impact was not only perceived at a pedagogical level but it also provided a basis for practical improvements on social and environmental issues.

‘Yes, it brought up several examples where we might improve practices. We should be looking at renewable, grey water, transportation and waste. It has helped me focus some of my work towards engaging with students in these matters and helped steer my work towards stimulating debate on environmental issues, such as whether we should be pushing for sustainability more in new buildings, looking at long-term costs not just initial building costs and saving money over subsequent years, and personally being more aware of what [the university] might do and how my role might work with students in their curriculum to mutual benefit.’

Graphic 1: Students’ feedback
6.3 Self-generated feedback
This section will deal with self-generated feedback, which includes a personal overview from the course coordinator and other members of staff involved on coursework design and execution. The coursework had an important impact not only in terms of improvements in teaching and learning practices, but also in promoting the engagement among different professionals. The coursework was an innovative way of delivering the subject matter. It was evident that this engaged students and that they valued this experience. It was notable how practical experiences could give life to the words in the textbook. It was reassuring to see students growing academically while researching, discussing in groups and writing their report.

7. Discussions and final comments
In this article, we described an educational exercise of which the main focus was to produce SER for a particular Scottish university. This exercise was inserted into a module on Social and Environmental Accounting as coursework for undergraduate students in their second year. As a teaching and learning practice, the coursework was not only perceived as a good initiative to develop the awareness of social and environmental issues but it also equipped
students with communication and employability skills such as working in groups, conflict resolution, presentation and discussion in front of an audience (Kayes, 2002, Kolb and Kolb, 2005).

Moreover, the coursework provided a space for students, academics and members of staff in administration get together to talk and to understand better the initiatives that university has in place regarding social and environmental issues. They also discussed possible ways of improving these initiatives. Members of staff envisaged simple and concrete ways to go forward on different issues such as, energy consumption and recycling.

This article also provides an analysis of the coursework as being a practical example of dialogical approach of SER and knowledge creation. We have built our descriptions on the results achieved by the coursework in the dialogical approach to SER, which is based on pedagogical concepts and has been extensively applied to social and environmental accounting (Thomson and Bebbington, 2004, Bebbington et al., 2007). We also inserted notions from knowledge creation theory. This theory has not only been used to analyse business contexts but it has also been used to aid the understanding of knowledge creation in educational contexts (Rynes et al., 2001, Travaille and Hendriks, 2010). As such, we are positive that these two approaches when taken together contribute to the explanation of developments on SER agenda at higher education.

More specifically, we argue that Explicit and Tacit knowledge were created in the course of the stages required in the described coursework. We also stress that there were at least three complementary conditions that drove knowledge creation in this specific case. First, the different modes of knowledge creation were facilitated by the way the objectives of the coursework were communicated to students and members of staff in the university. We believe that this has been an important factor, which enabled us to gather the data available for the students’ research. Second, the students’ education drove the quality of SER content and discussions. Important factors for the students’ education were: (i) the content of the module on Social and Environmental Accounting and (ii) different sources of information internal and external to the university that were made available for students to produce SER. Third, the way students approached the recommendations and built face-to face trust among participants, as the main objective of the coursework was not ‘point the finger’ but to work together towards a common goal.

As a result of this experience we understand that a dialogical approach to SER can be achieved using several modes of knowledge creation in a complementary manner but this study did not support the idea of following a rigid sequence as suggest by Nonaka (1994) in the ‘Modal Shift and Spiral of Knowledge’. In our views, the sequence of the modes of knowledge creation with regards to SER will depend on particular the particular objectives or perspectives of the individuals involved in the process of knowledge creation.

REFERENCES:


Natives, immigrants, residents or visitors? Developing a student-led understanding of the role of digital literacies in the curriculum

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ABSTRACT: The well established digital natives construct posits that those born into the digital age have an immersive command of technology. However, the fervour with which the debate was initially received has in recent years been replaced by increasing criticism. Indeed, the colonial native versus immigrant metaphorical bifurcation has been modified to reflect the potential existence of more transient, mutable roles of digital resident and visitor. For students, affiliation with the digital native ‘tribe’ may be less than straightforward. This paper aims to contribute to discussion on what, if anything, students studying in creative disciplines understand by the term digital native and how they might interpret the concept of digital literacies within their curriculum. Facilitating a student-led conceptualisation of the attributes and competencies associated with developing digital literacies and confidence in using technology for educational purposes provides scope for participative, empowering and collaborative institutional debate to directly inform forward-looking, responsive and sustainable cultural change.

1 Introduction

For Gilien and Barton (2011), digital literacies refer to ‘constantly changing practices through which people make traceable meanings using digital technologies’ (p. 9). Such meaning-making is key within creative education in encouraging expression, reflection, autonomy and lateral sense making. As such, embracing digital technologies as part of the holistic learning experience enables students to research, develop and articulate ideas in a variety of innovative multimedia formats.

Students in creative disciplines, such as those studying Art, Design or Architecture at the Glasgow School of Art (GSA), are required within their programmes to balance a combination of academic, information and digital literacies. The unique demands of composite modes of study - studio based learning as well as online and more traditional tutor-led scenarios - require students to develop confidence in the underpinning principles common to all three literacies areas: adaptability, critical application, collaboration and solution-focused, creative use of educational technologies (see e.g. Lea 2004; SCONUL Working Group on Information Literacy 2011; Bawden 2001 for extensive discussion on attributes key to each area).

However, students’ use of technology in learning and teaching may not necessarily match existing confidence and competencies of everyday, personal use. As increasing criticism of reductionist concepts such as Generation Y (Manuel 2002) and digital natives (Prensky 2001a, 2001b) attest, assumptions are often made on the part of institutions as to students’ use of technology and the perceived ease of transferring principles from the personal domain to the academic (Beetham 2009; Cranmer 2006). Reaction to the digital natives debate now posits it as over-simplistic (Luckin et al 2009), and as harbouring potential for the interpretation of students’ digital literacies to be stronger than they actually are (JISC 2009). As with both academic and information literacies, expectations of applying digital literacies within academic programmes must be made clear to students, both on joining their programme and as requirements change throughout each academic transition. The student perspectives presented in this paper point toward a need for continued opportunities to enable students to develop confidence in using technology for educational purposes according to potentially differing context and learning preferences.
2 Natives, immigrants, residents or visitors?

The digital natives (Prensky 2001a) construct posits that those born into the digital age have an immersive command of technology, in contrast to those digital immigrants (born before 1980, according to Prensky), who are required to actively develop technological confidence and competence through adaptation. Digital natives allegedly share a number of defining characteristics, including an expectation of rapid information delivery, a pre-disposition to multi-tasking and accessing information in non-linear ways (Prensky 2001a, 2001b; Oblinger 2003). Bennet et al (2008) argue that the two-fold significance integral to the digital natives debate is that firstly, this discrete population with specific attributes exists, and that secondly, there is a significant mismatch between the expectations of the role of technology in learning between students and academic practitioners.

However, the fervour with which the debate has been received has in recent years been replaced by increasing criticism; a counter to the 'moral panic' with which Bennet et al (2008) argue has characterised attention to date. In suggesting a more disinterested, pragmatic approach, Bennet et al echo increasingly widespread criticism of the construct (Kennedy et al 2008). Indeed, the colonial native versus immigrant metaphor has been modified to reflect the existence of more transient and flexible residents and visitors (White and Le Cornu 2011).

This move to incorporate the complex and varied ways in which people interact with technology into a more flexible typology offers much more scope to consider the richness of students' experiences; past, present and future. However, the residents/ visitors typology still creates an either/ or perspective, when perhaps there is more argument for a view that incorporates movement between technologies as well as in and out of them. A holistic view of navigation, considering existing knowledge, its application, and its evolution into new or adapted knowledge, may be one such premise on which a more inclusive typology might be based.

3 About the institution

Learning technologies have been an integral part of learning and teaching practices at the Glasgow School of Art for a number of years. In addition to a centrally administered Virtual Learning Environment (VLE) through which students access academic course information, tutors make use of a variety of media and technologies which extend opportunities for learning beyond the studio. Increasingly, in line with an expansion in the use of non-mainstream knowledge and discourses as part of internationalisation and massification of education in recent years (Eijkman 2009), collaborative web 2.0 and mobile technologies are used to facilitate creative learning networks. The use of blogs and wikis as collaborative learning spaces, as well as connective social media such as Twitter, Facebook and media repositories such as Flickr and Vimeo have also increased in use. There are a number of virtual interdisciplinary communities (some curated by students) affiliated with the institution where information about events, exhibitions or creative works are shared.

A number of initiatives already exist to facilitate the scaffolding of students' use of technology in learning at GSA. For example, IT Twilight Classes offer a programme of opt-in, after-hours software workshops where students can develop or enhance their confidence in a particular area. Workshop materials are made available through the VLE so that if students are unable to attend they can access resources at a time that is convenient to them, and on a repeat basis. Also, the Webtastic! VLE course contains a diversity of resources (podcasts, walk through guides, videos, links) to help students develop and manage their own web presence. In addition, the InfosmART information literacy resource, which has recently been made available for re-use by other arts-based institutions under a Creative Commons licence, offers support on using evidence in academic work.
4 Student perspectives on digital literacies in the arts

Two focus groups were conducted with students in the first term of the academic year 2012/13. Issues raised in the discussion groups reinforced complexities associated with perceptions of students' use of technology in learning. Students shared contrasting and diverse perspectives on the role that digital tools played in their learning and creative practices and highlighted the importance of the institution in providing a robust technological infrastructure and in helping to clarify the purpose of differing technologies in learning. Students noted the usefulness of the immediacy of responsive support to software and hardware queries with direct access to staff in the library, as well as to the scheduled IT Twilight classes.

Students who took part in discussions noted huge variations in access and ownership of mobile technologies, from non-existent to immersive engagement. In induction sessions during the beginning of the academic year 2012/13, of 478 students, 320 owned smartphones (as a proxy for mobile engagement in this context) (67%). Whilst there may be a presupposition that most if not all students may have access to the use of a smartphone and thus portable access to immediate information, for a third of incoming students this was not the case. Whilst mobile pedagogies are an area that the institution is keen to explore, encompassing the use of tablet and other handheld devices as well as smartphones, this will be done as an enhancement or alternative to principal blended routes. In this way, the flexibility offered by mobile technologies provides scope for learner choice and autonomy.

Students were asked about their awareness and interpretation of the term 'digital native' as part of discussions. Despite none of the students having heard the term, two students said that they would consider themselves to be digital natives, and that it was a description that resonated with them. Other students described it as 'a strange term' or 'a weird concept', and one student commented on its limiting potential:

"I think to assume anyone born would automatically know how to use one form of technology or maybe prefer it to an analogue process is slightly jarring..."

In discussing the time-bound definition of being born post 1980, as per Prensky's description, another student raised concerns about the efficacy of making sweeping generalisations based purely on age:

"Yeah, I mean my idea of those terms is that it's kind of dangerous to assume that anyone born past 1980 will automatically be able to use technology...and also, you can't put everything digitally..."

In this context, students discussed conscious ways in which they used technology in their creative practice, balancing analogue and digital techniques. As per Oblinger and Oblinger's (2005) research, many of the students spoke in terms of process and outcome, of the creative journey and what the technology allowed them to achieve as opposed to focussing on the technology itself. For one Fine Art Photography student this process was about protection, and having more scope to preserve the stages of her work as opposed to risking 'ruin':

"I'm more of a digital person, because I tend to ruin things. Cos in analogue photography you just have much more stages and you can actually ruin what you've done...you can go wrong at more stages...but it really depends on the quality and feeling you want to achieve."

This purposeful use of technology in the creative process and learning environment was also referred to as a way of providing peer cohesion, company and support. One student privileged the importance of the co-created learning experience as opposed to the potentially isolating experience of independent self-study, and again cited her use of technology as instrumental in this:
"Just being with someone else in the room, people working...in this work environment, so you’re more productive. I stay, like, one hour...two hours after teaching finishes because we have a full curriculum...and I choose to stay there several hours sometimes just because there are people there..."

By using technology to maximise face to face contact, this student was able to develop her skills and peer network. Other students discussed the role of technology in community building online, in both fostering and restricting distributed networks. In referring to social networking communities that traversed several aspects of students’ lives, one student noted that although Facebook was useful in offering an online community for her class, the blurred boundaries of sharing her academic content with a wider network made her uncomfortable: "We’re using Facebook, we share with the class, like...a separate website and our group. But I don’t want to share my work with other people...with different friends. For example, I don’t really want to show something that is, I don’t know...deeper.”

As with the transference of digital confidence from using technology for personal purposes to academic, students too have to navigate interaction protocols within different communities. Based on relationships, context, purpose and preferences, these critical decisions give students autonomy over sharing their creative works (or not) with differing groups.

In discussing the concept of digital literacies with students in recognising existing personal technological confidence and transposing this to education, one student recognised some of the problematic aspects of the digital native construct in conceptualising digital literacies. Students were less able to define what this might actually mean for them, and were quick to point out the context dependency of a definition. "It's a strange one. I've heard of the term 'digital literacy' but it completely depends on what you’re using or what...what it is. Just because its digital doesn't mean it's user-friendly. But I mean ...I know you need to title things, you need to give things a snappy heading and I would call myself digitally literate...but again, it depends. Stick me in front of a certain programme and I'm lost. But then again I've probably got the understanding to work out how to solve the problem, you know maybe around file menus. So I mean, within half an hour I could get my head around something...but again to assume that that's the case for the majority...you can't really do that."

This student highlighted the importance of the underpinning attributes as opposed to software-specific knowledge, and whilst confident that he could employ these skills was unsure that this was a universal truth for his peers. Another student also highlighted that they could likewise understand the concept of digital literacy, but also found it problematic. However, as a graduate attribute, the student acknowledged the importance of developing digital confidence in this context over the course of study: "I do think it's a skill in college, you know, something you should leave with...or at university. Whatever it means - you should have it..."

This reference to the vagueness of 'whatever it means' encapsulates well the ambivalence that Eshet-Alkalai (2004, p. 94) refers to in the suggestion that 'indistinct use of the term causes ambiguity, and leads to misunderstanding, misconceptions, and poor communication'. The vagueness was countered by students' request for clarity and consistency, in, for example, guidance on using the library catalogue and in course organisation in the VLE. In discussing the latter, one student highlighted importance of staff awareness under the auspices, too, of 'literacy': "And it's something that should expand to the tutors to make sure that they're VLE literate...so there's a kind of set way of doing things, cos it is sporadic in terms of folders in different departments. But I mean obviously a lot of the tutors will be, uh...immigrants to technology...so that's another reason to make sure that everyone's on the same page...it's just a massive page."
5 Discussion

Students discussed the need for a more fluid, contextually dependent understanding of interactions with technology, based on personal choice, selected interactions, access to community (online and face to face) and enactment of autonomy as opposed to definable and compartmentalising demographics such as age. Students discussed the usefulness that technology afforded them in terms of creative preservation and process, choice of media and mode, connectivity and peer support. Some also recognised their ability to transfer principles of use from one software package to another, under the auspices of grappling with the tenets of digital literacies, 'whatever it means'. The co-existence of analogue and digital techniques was endorsed by students in examining their practice and considering their preferences.

A flexible, mutably typology of use and engagement with learning technologies based on context-dependent interactions allows for less division and compartmentalisation, and posits that potentially everyone can and does interact with technology in some form. Such an inclusive perspective offers technology users the scope to change roles and control interactions and process as opposed to being ascribed a bounded and potentially passive identity. All those who engage in such digital navigation may enact autonomy in digital interactions, information retrieval and critical application or transference of technological knowledge and experience. As notions of digital literacy pervade throughout the lifecourse, so too does an ability to navigate digital resources as one migrating from learning episode to functional task to reflection.

Navigation between, rather than into, technologies is part of a flexible, customisable and vibrant continuum, contingent upon diversity, difference and autonomy as opposed to isolated, contradictory and compartmentalised roles. Variances in process, subject specificity, context and access to technology inform learner choices and preferences in medium and thus have an undeniable effect on the creative process.

References


Oblinger, D and Oblinger, J (2005). Is it age or IT: First steps toward understanding the net generation. Educating the net generation, vol 2, no 1-2, pp 20


The Fourth key - digital competence for teachers

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ABSTRACT:
The fourth key competence is a project of collaboration between Uppsala University and the municipality of Uppsala. The aim of the project is to improve the skills in ICT among school teachers and teacher students and to inspire them to use computers as pedagogical tools in the classroom.

The program coordinators worked with teachers and students of the teacher training program with the aim to improve examinations and assignments through the use of computers. In 2012 approximately 300 students of the teacher training program have been involved in courses using ICT skills for presenting examinations and assignments.

Methods for integrating ICT skills include improvement of assignments, use of digital display surfaces etc., and development of a web resource. From the project follows that many teacher students are inspired to use the digital display in different ways and also to take optional courses to improve their ICT skills. Teachers report the digital tools strengthened their course outlines, assignments and examination.

1. Introduction
In accordance with the EU's key competences for lifelong learning and the new National curricula, the demands on teachers' digital literacy increase. The fourth key competence is a project of collaboration between Uppsala University and the municipality of Uppsala. One aim of the project is to improve the skills in ICT among the schoolteachers and to inspire them to use computers as pedagogical tools in the classroom. The second aim is to improve ICT skills among university students at the teacher training program with respect to computers as pedagogical tools. Previous efforts in school and in teacher training suggest that knowledge of digital tools cannot be implemented by individual events, but need to be integrated in other educational activities.

In this article we will present how we together with teachers in teacher education programs worked out strategies for ICT. This work has involved reviewing and developing coursework and development of technical solutions including visibility of student's progression and enabling experiences. We will also discuss how we choose to integrate ICT skills in the courses of the teacher education program by letting the students present their progression through their education using digital presentation views. We will talk about how students use technology through their education and what effect it has had on student - teacher interaction, examinations and assignments.

2. Background

As ICT more and more becomes an obvious aid in all parts of societal activities the competence requirements increase for all those operating in various parts of society. Education in general, and School and Teacher training in particular, are no exceptions. Already in 2006 the European Parliament decided on recommendations on competences for life long learning, including digital literacy as the 4th key competence (European Commission 2007). A new National curriculum (Lgr11), municipals investing in training of school staff and increased government inspection of higher education, force the Faculty of Education and the Department of Education at Uppsala university to take action to ensure their mission regarding digital competence.
National Agency for Educations’ recent review of the use of IT and IT skills in the Swedish school system shows that Sweden is one of the countries with the greatest access to technology, but where it is not used in any great extent. In the survey many teachers testify about the need for more expertise in this area. This is consistent with previous evaluations of IT investment in school such as the One-to-one project (Hallerström et.al. 2010).

One of the lessons learned when evaluating these projects is that it requires many different skills to use digital tools in educational purposes. It is not just about learning techniques and programs, but also about being able to understand the educational opportunities and to tie these to a teaching content, see Fig. 1.

![M Koehler model](http://tpack.org)

**Fig. 1. M Koehler model (Source: http://tpack.org)**

### 2.1 Swedish teacher education

In Sweden teacher education is part of higher education since 1977, and have been lively discussed and also subject to substantial changes in the last years. The decisions about teacher education are related to changes in the education sector in society. When reforming the teacher education in 2001 one clear ambition is to strengthen the academic character of teacher education programmes. Further the importance of ICT-competences was pointed out including basic ICT-competency for personal use and competency in using ICT with pupils in educational settings (see Ds 1996:16). In relation to this focus on ICT-competence in Teacher education, Kallos states:

"It is noteworthy that these demands were introduced as general requirements for degrees in teacher education programmes. Teacher education programmes thus had to be adjusted to these new demands and the universities and university colleges responsible for teacher education had to introduce strategies to increase the ICT-competencies within teacher education itself. Teacher education accordingly may at least partly be regarded as a forerunner in matters pertaining to ICT in Swedish higher education" (Kallos, 1999, p. 167).

In 2011 the latest reform of teacher education took place. In the outlines for the reform it was stated that four perspectives should be an integral part of all teacher education: a scientific
and critical approach, a historical and an international perspective and ICT as an educational resource (SOU 2008:109 p. 191). In the ordinances, identifying the qualifications that must be completed and what requirements students must fulfill for each exam, it is stated that the students should:

"... demonstrate the ability to safely and critically use digital tool in the educational activities and to consider importance of different media and digital environments role thereof" (Högskoleförordningen, bilaga 2).

2.2 Teacher education programs at Uppsala University

At Uppsala University teacher programmes are among the largest programmes, counting number of attending student. Especially the Preschool teacher program is popular among the students and it is number ten in the list of programmes attracting largest number of student applications. Three teacher degrees are available at Uppsala university: degree in preschool education, in primary school education directed towards preschool class to grade 3 and primary school education directed to grade 4 to 6, and finally, in subject education, directed at work in years 7-9 of compulsory school (lower secondary school) and in subject education directed at work in upper secondary school. Teacher education requires between three and five years of studies depending on the educational field. The studies are divided into University located studies and School Located Studies. During school located studies, in total 60 Credits, the students spend a period of time in his/her future professional environment i.e. in preschool or school. The university located studies include a core of educational science, in total 60 Credits, and subject knowledge depending on degree. At Uppsala University teacher education is regarded a responsibility for the whole university and subject teacher students study subject knowledge at different departments. Courses in educational science are studied at Department of Education.

Over many years elective courses in ICT and learning have been available within teacher education at Uppsala University, where a small number of teacher students have acquired the relevant competencies to integrate ICT in their teaching. Most students, however, have only participated in occasional and optional lessons in ICT, resulting in that they do not acquire the necessary skills. The few initiatives to reach out to all teacher students in the past have often ended up with individual and isolated elements, which have failed in relating to the courses the students study.

3. The project

The fourth key competence is a project of collaboration between Uppsala University and the municipality of Uppsala. One aim of the project is to improve the skills in ICT among school teachers and to inspire them to use computers as pedagogical tools in the classroom. The second aim is to improve ICT skills among teacher students in different teacher education programs with respect to computers as pedagogical tools.

It is important to regard ICT skills not as a separate part of a course, but integrated in the courses. The project aimed at making teacher students comfortable in using digital media, web resources and modes of communication usually used by children and youth, and to familiarise the students about technical devises used in schools, such as interactive boards and software.
Fig. 2. The fourth key project. The project coordinators worked with teachers and teacher students with the aim to improve examinations and assignments through the use of computers. The project coordinators also developed and implemented technical solutions to illuminate the progression of students and to improve the sharing of experiences. In addition to this the coordinators developed a web resource to support the work of students and teachers. The idea of this web resource is that students and teachers will be inspired by good examples of how other educators have chosen to integrate ICT in their teaching, but it will also serve as support to cope with the digital forms of examination, which the student will face during their education. There is also a page with training manuals and resource films for in-depth learning program. In 2012 approximately 300 teacher students have been involved in courses using ICT skills for presenting examinations and assignments. All these students and their teachers is part of the evaluation process starting in November 2012. Below (Fig. 3) is an overview of the first three semesters, of 8 in total, of primary teacher training where the symbol indicates ICT element. Further down is a description of one of these courses.
An example of a course in which ICT is now included in the curriculum is "Swedish 2 for Teacher Training Programme, Preschool and Grade 1-3". The purpose of this course is to give theoretical and practical knowledge of the students' speech, reading and writing development and their encounter with fiction and non-fiction.

The ICT element in the course concerns meaning making and language learning in different practices, focusing on aesthetic expression, multimodal texts and ICT. The teacher students' are expected to use ICT to support learning within different teaching methods. They develop, plan and implement teaching with digital learning environments and digital tools for teaching the school subject Swedish. Students plan, build and publish their lesson structure on the digital display surface and then use the material in practice during the school located studies. The idea is that also performance and productions by the pupils in school can be made visible on the student's digital display surface. Using the digital display surface means that teachers as well as other teacher students have the opportunity to observe and provide feedback during the on-going process. The feedback can be formalised by including acting as opponent as part of the examination task.

The project has also included collaboration with other departments at Uppsala University to ensure students progression throughout the program. Further, Department of Education also provide in service education for different target groups such as principals, teachers etc. in the municipalities, we have cooperation with, to strengthen the digital skills of teachers in schools. At the same time the municipality of Uppsala have arranged four courses for teachers since August 2010, each course lasted one year and was equivalent to 15 days of full time work. Five days was scheduled with lectures, seminars and workshops. The courses dealt with issues as: password management, basic and advanced ICT skills, school equipment, laws and regulations, source criticism and network knowledge. There has also been a course regarding Digital Competence for principals.

4. Baseline report

The fourth key project is in progression and in the current situation we do not have complete data on the project, as teacher students involved in the project still study and have not completed the ICT elements planned. It is not until 2015 that we will be able to complete the entire project-evaluation, as the first cohort of students have graduated. Interim results are based on evaluations of parts of the project, and the trends we see in number of applicants and completed examination tasks so far.

The process of evaluating the project includes interviews with teachers and students as well as the department's course evaluation tool used in all courses. The evaluation focuses on
two areas. The first is the extent to which students' academic performance is equivalent to the expected outcomes of the policy documents and curriculum. The second is to evaluate the changes in working practices brought by each student creating their own digital display surfaces.

All teacher students entering in the primary or pre-school teacher-training program creates their own digital display surface where the student's progression is made visible. Many students take the opportunity not only to present the required information, but also continuously reflect on their future professional role in encounter with other student experience. We have also seen an increase in students who have chosen to report data using digital tools, such as web pages, digital presentations or movies. This has partly been made possible by the teachers opening up for alternative ways to submit assignments, but also because of the digital resource that we have developed within the project to support students different productions.

We also noticed that the number of applications to the optional courses in ICT and learning increased, as many teacher students choose to supplement their training with these optional courses in order to deepen their digital skills. Many of those who apply for these courses are teacher students who have had elements of ICT in their teacher training. This can perhaps be explained by the awareness has increased around ICT - issues, but also to the students' awareness of the importance of making themselves attractive for employment.

The courses in which ICT-elements have had the most positive impact are where the teacher educators had a clear pedagogical idea and purpose of integrating digital tools. Several teacher educators also report that the digital tools strengthened their course outlines, assignments and examination. Many testify that the commitment of students has increased.

Some criticism has concerned the visibility of teacher students' progression and the risk of plagiarism. Teacher educators report that they sometimes found it difficult to understand how the digital tools work and therefore had a hard time answering the students' questions or tutor them. They call for more support and professional development for themselves.

5. Looking ahead

We have already been able to see several positive results when it comes to increasing students' digital skills. It has to start with getting students comfortable using digital tools and to enable students take control over their own learning process. The digital presentation surfaces used in several courses have contributed to an increased interaction between students or between students and teachers. Teachers at the University have been able to monitor students while they are on their school located studies. It has also given students the opportunity to practice on creating activities that exposes learning and giving feedback to fellow teacher students. Teacher students' process-writing through their education has brought the teacher programs' activities to light and this, in turn, have aroused interest from several other departments to teach with similar methods.

Some of the teachers who participated in the project report that they need more support in their process of change. Here, we need to increase our understanding of how to work with ICT. We need to create a forum in which university teachers can share their experiences, get support and guidance as well as develop their own expertise in and understanding of digital tools.

Efforts to develop methods and design assignments that enable teacher students' ICT knowledge and skills are made visible and the development of the process in which students become the owner of their own learning process will take time. It's not so much about technology, but more about an attitude and approach to knowledge. The process of change initiated with the project The fourth key, is a necessity to ensure the assignments of teacher education programs, but will take time. When in due time ICT will be included in more programs it will concern more teachers and teacher students, and demand
expanded collaboration with other departments, this is something that needs to taken into consideration.

References


Do students study and learn differently using e-Readers? A cross-discipline research investigation into the pedagogical implications of using e-Readers to study university level texts.

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The Open University in Scotland

ABSTRACT: We present preliminary results from a pilot study which is investigating the use of e-Readers for learning by two groups of Level 1 undergraduate part-time distance students and their tutors in the UK Open University. The Kindle e-Reader was used in the study as the most accessible and common e-Reader in use in the UK. A mixed methods approach to the research includes diary studies, semi-structured interviews, focus groups and surveys. Grounded theory is used for data analysis. Key themes emerging include a distinction between 'concentrated reading' and 'active learning', and changing study habits in students, aided by the portability of the device.

Introduction

In the past few years there has been a huge growth in the use of e-Readers in the UK population. The market leader, Amazon's Kindle, has vastly increased its sales worldwide (Lunden 2012b; Ramaiah, 2012) with growth of Kindle sales in the UK mirroring growth of Kindle sales elsewhere in the world (Lunden, 2012a; Anscombe, 2012). Simultaneously there has been a growing interest in mobile learning in the Higher Education (HE) sector, as evidenced by many conferences and special issues of journals on this topic (eg Open Learning: Journal of Open, Distance an e-Learning 2010, Vol 25 Issue 3; the annual IADIS Mobile Learning conference), and there is evidence that most students use technology of some sort or another for studying and preparation (Massis, 2010). Understanding how students learn using e-Readers is a relatively neglected part of this surge of interest in mobile learning, although it is likely that increasing numbers of students from HE institutions will make use of e-Readers in the future as e-learning programmes increase (PR Newswire, 2012). Although there is evidence in the literature that HE students in campus universities have been slow in the past to start using e-Readers, being discouraged by previous relatively high costs (Foasberg, 2011), a recent survey within our own institution, the UK Open University (OU), found that 50% of postgraduates own or have access to an e-Reader or tablet, and 60% of those students use the device at least once a week for studying (Sharples & Cross, 2012). Patterns of use are likely to be similar in our undergraduate population and in other distance institutions. In this context it is important to know whether e-Readers can be used successfully for studying in higher education.

e-Reader useability research

e-Readers make use of e-ink technology which allows the reading experience in many respects to be similar to reading a printed book. The text can be read in reflected light from virtually any angle; the display is stable and in high contrast (Godwin-Jones, 2007). It has also been found that the eye behaves similarly when reading e-ink and paper print (Siegenthaler et al, 2011; Kretzschmar, 2013). In fact, in some respects an e-Reader can be more legible than a book, as the reader has the ability to increase font size to suit (Siegenthaler et al, 2011).

In the existing studies of how students in the HE sector use hand-held e-Readers, several studies concentrate on the advantages and disadvantages of the functionality (Broadhurst & Watson, 2012; Richardson & Mahmood, 2012; Angeletaki, 2011); other research focuses on producing information on how to improve the devices from a design point of view (Gibson & Gibb, 2011; Lai and Chang, 2011); and a number of studies look at the use of e-Readers
from a library services point of view (eg Mallett, 2010; Aaltonen, 2011; Kemp et al, 2012). Very few studies concentrate on how student learning is affected by the use of an e-Reader.

Reading practices

There is presently some controversy about the effect of modern technology on the brain's capacity for absorbing practices, such as deep concentration on a text, sometimes called deep reading (Carr, 2010; Bilton, 2010). Recent research by Kretzschmar (2013), using comprehension probes and eye-tracking technology, concluded that there is no objective evidence of decreased comprehension when using an e-Reader compared to a traditional text (for a variety of different types of text including scientific and non-scientific texts), despite participant perceptions that electronic text was less easy to read. These authors suggest that the common perception that e-Readers are less easy to use is a cultural rather than a cognitive phenomenon. Indeed Keller et al (2012) suggested that this perception may be caused by a deep emotional connection with the printed book, particularly for those who have been avid readers in childhood.

Supporting the conclusion that comprehension is not diminished when using an e-Reader, Behler (2009) found that students felt more immersed in the text of an e-Reader compared to reading paper - although the author surmises that this may have been caused by navigation issues, which meant that students needed to concentrate and read the text more thoroughly on a first reading. In contrast to these studies, Thayer et al's (2011) research focussed on university level study using the now defunct Kindle DX e-Reader. This longitudinal study of student study habits uncovered issues such as an inability to create cognitive maps (Li et al 2013; Rose, 2011) of e-Reader texts because of a lack of spatial and kinaesthetic clues (eg page numbers, headers, physical weight of the text and other features). Thayer et al suggested that this caused students to take longer to locate material, and reduced their mental energy for other tasks, so that students were less productive when using their e-Readers compared to using printed texts.

As educators, we are particularly interested in encouraging deep reading, where students are concentrating hard, learning, and developing new knowledge by engaging with a text. In the literature this is usually thought to be the same as 'active' or 'responsive' reading (Qayyum, 2007; Thayer et al, 2011), although it could be that deep concentration on a text to follow a long a difficult argument may not actually need the markers of active reading, and should be considered as a separate practice.

Research questions

This paper presents early results from a pilot research project in the UK Open University which looks at the experience of 20 students and their four tutors who are using e-Readers for studying. Our basic research questions are fourfold: How do students read and learn using an e-Reader? Is it possible to use e-Readers for deep reading and active learning? Do e-Readers affect students' study patterns? Are e-Readers useful devices for tutors supporting learning? The basic Kindle e-Reader was chosen for this study as it is presently the most prolific e-Reader in the UK population, and because of its cost, reputation and ease of use, the one that OU students may be most likely to buy.

This research is new in several respects: at the moment little is known about how students study and learn using e-Readers; our study is cross-disciplinary, looking at how both Science and Social Science students study; we look in particular at how e-Readers can be used to support deep reading and active learning; we consider how e-Readers could help or hinder HE distance students with a wide range of ages, rather than school-leaver campus students, who have been the focus of most studies; we also look at how tutors might use e-Readers to support students.

Educational setting
The OU provides distance education for over 250,000 students worldwide, most of them from the UK and studying on a part-time basis. Student ages range from school leavers to retired, with a median age of new undergraduate students of 32. These students have busy active lives outside of their studying with most having jobs or other occupations. Scottish OU students come from all geographic areas in Scotland, with around 60% based in urban conglomerations, 25% in rural and remote areas, and the rest living in small towns. Around 7% of OU in Scotland students are disabled, and around 45% of undergraduates receive assistance with fees.

The OU operates a model of 'supported open learning'. Students receive module materials, traditionally textbooks, other multimedia content like DVDs, and online material, and are given a study timetable to work through this material. Active learning is strongly encouraged, with in-text and end-of-chapter questions, multimedia and online activities. Each student is allocated a tutor who works from home and may be geographically local to the student, although increasingly may not be, as more and more modules move to online presentation only. A single tutor has a group of 15 to 25 students and supports students through group tuition (online and/or face to face), individual tuition by phone and/or email, and correspondence tuition on student assignments, which are usually completed and marked electronically.

Within the OU there is presently an institutional drive to providing material electronically, in e-text book format, for use on mobile devices, and there may come a point in the future where traditional textbooks are no longer used in some faculties. In this context, it is important to examine the implications for student studying, to evaluate if there are significant differences in learning using e-Reader texts and traditional printed texts.

The two modules which are the focus of this research project are the Science module 'Introducing Health Sciences: A Case Study Approach', and the Social Science module 'You and Your Money: Personal Finance in Context'. Each is a first year undergraduate module worth 30 points in the UK's Credit and Accumulation Transfer Scheme (CATS). The modules run for nine months and require around eight to nine hours of study per week. These two very different academic subject disciplines were chosen in order that any discipline differences in the way that students engaged with academic texts on an e-Reader might become apparent.

Before it commenced, the research was approved by the OU's Student Research and Project Panel. This panel reviews research methodology and makes sure that ethical guidelines are followed.

**Methodology**

We use a mixed methods approach to address the research questions. This involves several different data collection methods, most of them qualitative. A diary study for students and tutors over a period of about 3-4 months (late February to early June 2013) allows an ethnographic approach: students and tutors use these to describe their daily and weekly use of the Kindle in their own settings. In addition we plan to employ semi-structured interviews for students and a focus group for tutors at the end of the diary study period, which will allow deeper exploration of the research questions in the context of the completed diaries. A group interview part way through the research was undertaken with the two Science tutors, and we conducted two early student surveys to determine (1) why the students wished to be involved in this research and (2) student prior use of e-Readers as well as student perceptions of their competence in use of computer technology. Data collection for this research is still ongoing, but we present preliminary analysis and discussion below.

**Student participants**
22 out of the 52 students from the two modules who were invited agreed to take part in the project. Two of these subsequently withdrew for reasons unconnected with the research study. Of the 20 students presently participating, 15 are Science students and five are Social Science students. 70% are female. Ages range from 17 to 72, with a median age of 37. Only seven of the students live in urban areas, with the other 13 living in rural areas and small towns, including seven that are remote. 13 out of the 20 students are receiving financial support for their studies, and three of the students count themselves as disabled. Most of the students consider themselves to be competent users of computer technology and regularly read for both work and leisure using screens and printed text, although most had not used an e-Reader prior to this study.

Findings

Module texts were obtained in Kindle format (mobi) from the Learning and Teaching Solutions unit within the OU, as part of a wider project (OU Anywhere) to produce module texts in mobile formats. The project team preloaded these texts onto student Kindles before distribution by post. Some documentation on using the Kindle for study was produced and sent to students via their tutors.

Usage

16 students and all four tutors returned study diaries covering the period late February to late March 2013. Each diary is split into a series of practical and reflective logs. The practical log includes details such as date used, length of usage, location, type of reading and whether and how notes or highlights are made. Reflective logs focus on how the Kindle affects study patterns and includes reflections on the use of a Kindle for concentrating, learning and remembering.

116 student and 26 tutor practical logs were collected. These showed that for students, concentrated reading over a period of about one hour was the most common type of usage. The students used the Kindle both at home (67 logs) and away from home (53 logs). Table 1 indicates the type of reading and the markers of active learning use indicated in the student logs. The tutors used a mixture of skim reading, when answering student queries, and concentrated reading, when preparing to mark an assignment. Tutors mainly used the Kindle at home, in their normal working environment, but one tutor also used it whilst travelling.

<table>
<thead>
<tr>
<th>Type of Reading</th>
<th>Took notes (in any format)</th>
<th>Took notes (using Kindle)</th>
<th>Highlighted (using Kindle)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Concentrated (77 logs)</td>
<td>50 (64.93%)</td>
<td>5 (6.49%)</td>
<td>12 (15.58%)</td>
</tr>
<tr>
<td>Skim (27 logs)</td>
<td>6 (22.22%)</td>
<td>2 (7.40%)</td>
<td>6 (22.22%)</td>
</tr>
<tr>
<td>Both (10 logs)</td>
<td>8 (80%)</td>
<td>1 (10%)</td>
<td>4 (40%)</td>
</tr>
<tr>
<td>Didn’t indicate (2 logs)</td>
<td>1 (50%)</td>
<td>0 (0%)</td>
<td>0 (0%)</td>
</tr>
</tbody>
</table>

Table 1: Type of reading and markers of active learning in the student logs.

Student and tutor perceptions

Student and tutor reflective logs, and the tutor group interview transcript, were analysed using a grounded theory approach (Glaser and Strauss, 1967). In effect this method allows themes, issues and important topics to emerge from the data through iterative reading of the texts; these topics then form the basis for subsequent analysis. Several interesting themes emerged and we discuss these in detail below.

Deep/active reading and learning
An apparent contradiction arose in the student logs, where some students reported that they found it simple to concentrate using the e-Reader. However the same students (and others) reported that when it came to studying for an assignment, a process we came to describe as active learning, they tended not to use the e-Reader. In fact when answering a question about the learning tools used while writing an assignment, the students were eloquent on the problems associated with using an e-Reader.

Comments relating to ability to concentrate whilst reading with the Kindle included:
I have found it quite easy to concentrate and learn from the Kindle just as much as from the printed text. (S3)
I tend to lose concentration and start reading random pages of a text book, with the kindle I am much more disciplined and know to stop when my concentration is waning. (S14)
I am finding it easier to concentrate and take in the information using the kindle... (D4)
While students seemed to be able to concentrate whilst reading with a Kindle, they had more difficulty using the device for concentrated, or active, learning. Typical comments include:
The kindle is easy enough to learn from. However, I prefer using printed text for concentrated learning. (S7)
I'm enjoying reading from it, - it gives you the impression you are covering material quite quickly. I'm still not sure about the learning and remembering, - again it's all too 'samey'. (S1)
It is more difficult to concentrate on the text on a Kindle, I am more accustomed to using printed text and therefore I associate it with studying whereas a Kindle feels more like a leisure activity. (D3)
It is not hard to concentrate on the Kindle. Indeed, one gets the impression of reading faster, - perhaps because the pages are smaller. I think... it is harder to learn and remember than from printed text, because each page is less distinctive. - they all look similar. (S1)

These extracts offer one possible explanation for the apparent contradiction around 'concentration': it might be the case that in terms of simply reading, the Kindle is similar to printed text, allowing text to be read in a concentrated fashion. However, the more active reading associated with the learning process, which Thayer et al (2011) described as 'responsive' reading, is more difficult on an e-Reader.

Thinking through how students study for an assignment offers a useful way into considering active learning, as typically students will be engaging with certain elements of the learning materials in a concentrated fashion:
The difficulty of navigating between sections on the e-Reader was highlighted by a number of students, who valued the capability of skimming associated with printed textbooks, particularly when preparing a Tutor Marked Assignment (TMA). Typical comments include:
When I read the student notes relating to part A of the TMA, I considered whether to use the Kindle or Text Books to refer back - well I considered it for about one second. The Kindle seems much too cumbersome/clunky to use to refer back to specific parts of the chapters - it seems to me that it would never be a substitute for flicking back through a text book. (D1)
I have not used the kindle this week as I have been attempting to do my TMA and find it better to sit with the course book and handwritten notes whilst working on it. The small screen was a disadvantage this week as I could not skim read over the page to find the information I was looking for. (D2)
I suppose the ultimate test would be to use nothing else but the Kindle up to the point of an exam, and I'm not sure I would feel confident enough that its sole use would not jeopardise my results! (D6)

It would appear that the active reading associated with studying for an assignment requires an overview of the subject matter and the capacity to quickly skim between sections, a process related to the 'cognitive mapping' discussed in the Introduction (Rose, 2011).

11 Note that 'S' refers to individual Science students and 'D' refers to individual Social Science students.
Although tutors were not using the texts for concentrated learning, two of them also expressed difficulties with cognitive mapping using the Kindle, and reverted to using their printed texts:

*I did revert to my trusted course textbook on a few occasions, because I had bookmarked certain sections with coloured sticky tabs, which made them easy to locate quickly!* (Social Science tutor)

*If I need to know something now, if I’ve got a student email or a student on the end of the phone and I want to find out, I reach for the textbook, I don’t reach for the Kindle. Because I know I can find it in the textbook, and then I’ll be able to flick through and find page whatever, diagram whatever, and talk it through with the student.* (Science tutor)

One tutor however had little difficulty with this, suggesting that familiarity with using the Kindle can compensate for some of the problems associated with cognitive mapping, if the text is also familiar:

*You know I’ve got quite an awareness of where certain subject material is, I’ve got a good idea of where they are and it’s just using it to double-check really…. I’m used to using it... I don’t find it time-consuming to scroll through.* (Science tutor)

However, our findings so far, especially with regards to student learning, echo Thayer et al's (2011) conclusions, that e-Readers can "strip away" the kinaesthetic and spatial clues which support easy location of content. On these particular criteria the Kindle has performed poorly so far in this study, and most students did not use the e-Reader for their early assignments.

**Diagrams and tables**

Working with tables, diagrams and photos was a particular challenge using the Kindle, for both students and tutors, with problems caused mainly by the small (6 inch) screen and the lack of colour:

*...whereas normally if you had a table columns of numbers and you could easily come up and down and across and whatever, if you’re only limited to looking at a part of a table at a time, that restricts how much you could sort of analyse the data and work out what the data’s telling you so…. I think that’s the limitation.* (Science tutor)

*This week whilst reading chapter 2, a table was actual split over two screens which made it difficult to read and as I have bad vision anyway, I did not feel that I could make the writing any smaller so that it would come on to one page.* (D2)

*...in the pages I was studying this week there were lots of pictures and diagrams, and I was frustrated that even with enlarging them I still could not see them adequately… I took out the text book to study these particular pages.* (S3)

*Text is clear but, diagrams and photos don’t come up on the black and white screen clearly enough. Scientific data is often in colour and using this type of kindle has not met my needs.* (S7)

**Interacting with the text**

A theme that emerged from students was difficulty with the more practical elements of using the text as a tool for learning, for example, highlighting and note-taking. Students found it particularly difficult to take notes:

*So far I have found [it] too time consuming to add notes and highlight text on the kindle.* (D6)

*Writing text notes is cumbersome and I have given up, preferring to make notes on paper before I forget what I am putting.* (S3)

*I don't like using the kindle for highlighting parts of text as I feel it is not as effective as the traditional coloured highlighter on paper.* (S7)

*I still studied the same way as I would with the printed book - by taking notes with pen and paper, although I didn’t highlight any text on the Kindle.* (S4)

In practice, students did not use the Kindle's note-taking facilities; instead they preferred to take handwritten notes, which they used to refer back to, particularly when studying for an assignment. This was contrasted to their use of the textbook as a practical learning tool: *I do miss the wide margins provided in OU printed text books for scribbling personal thoughts/comments about the text. These have an immediacy of impact through recall of
writing them and hence aid revision/re-reading. Flicking back to a note on the Kindle doesn't seem to make such an impression. (S1)
I did notice that when I read the course text book, I tend to make notes as I go but when I use the kindle, I just read. (D2)
The implication is that students find the direct interaction with learning materials (which is so crucial to study) difficult with an e-Reader. Indeed, the implication of the second quote above is that using the Kindle is more passive: "I just read." This contrasts with active note-taking on printed material, which one student described as 'a means of taking ownership of the knowledge/learning'. The difficulties with annotating text do seem to suggest that this is a major weakness with using an e-Reader for educational purposes. In this respect our study agrees with findings from several previous studies (eg Angelataki, 2011; Thayer et al, 2011; Behler, 2009), although it should be noted that these previous studies focused on the use of PDF texts rather than the dedicated Kindle format used here.

Changing study habits

Size matters
The most significant advantage, reported by nearly all students and tutors, and in common with previous findings (eg Richardson and Mahmood, 2012; Angelataki, 2011), is the small size, weight and portability of the e-Reader. The Kindles were used to study where students may not have been able to study before: at the top of mountains, in doctors' waiting rooms, at sick children's bedsides, on ferries, on buses, at bus stops and in bed. Responses on this topic include:

[The e-Reader is] Obviously much more convenient - wouldn't have lugged the great tome up the hill in my rucksack. Sometimes my learning has a sense of place about it - so I will recall facts/principles from where I physically was in the landscape as in 'oh yes, on that glorious day up Blencathra I learned about the Financial Planning Model then thought about the activities as I walked up.' (D1)

It seems very light and portable, does not need an internet connection, and is as easily held as a book would be. (D5)
My most challenging week yet - I was supposed to have Friday & Saturday to myself to catch up with my study. Both my children decided to get the flu within days of each other, so I had to fit in the studying with looking after sick children. I don't think this would have mattered whether I was studying from paper or kindle. The up side was that I could sit beside my ill boys while reading, instead of being at a desk. Note taking was slightly more difficult. (S6)
I have found it absolutely invaluable because through my work I travel a lot and it means that I don't have to be worried about taking all the textbooks with me. (Science tutor)
So rather than having a big book, you know, I've got a very small computer desk, I've just got a small Kindle. And I've got it on the book that we're looking at. (Science tutor, talking about using the Kindle when running an online tutorial)
Students also described themselves as 'snatching' study time, where they studied for a few minutes with the Kindle whilst out, something not possible with a large textbook: It is perfect for taking in your handbag and snatching a few minutes here and there. (S6)
I can study more because of the kindle. You are able to snatch extra time i.e. when commuting, out for a walk at lunch and because it fits in your handbag, you can always carry it about just in case. (D2)

Of course an interesting point for learning is whether this study is additional to or a substitute for other academic work. At least one student commented that because they felt they had 'done' their study on the Kindle, they tended to do less concentrated learning elsewhere in the week. For example one student reported that because they had read their textbook on the Kindle on the morning commute they didn't 'tend to study at home because I think that I can do it on the Kindle'. (D3)

'Surreptitious' study
Another interesting feature of the Kindle’s size is the capacity to do what we describe as surreptitious study. This is study which takes place when others are present, but do not know what the student is reading. Most commonly this was reported as taking place at work, but also in the home environment:

*It is small enough to be discreetly used (I can read it in waiting rooms/in a quiet part of office).* (D2)

*I would have been uncomfortable reading a text book at the hairdressers however the kindle is inconspicuous and nobody questions it. They simply assume you are enjoying a good book - which I am! … In fact this week it has been easier for me than a text book, which would have made me feel conspicuous in a public place.* (S3)

One tutor also appreciated this feature of the Kindle:

*…nobody in public has any idea of the subject matter you are reading (unlike a book which has a cover and a title)…therefore you can concentrate safely in the knowledge that no-one beside or close to you is aware of the content.* (Social science tutor)

**Discussion**

Emerging results from our study suggest that it is possible to use the Kindle to support deep reading, but not active learning. Our preliminary findings point to a distinction between concentrated or deep reading and concentrated or active learning, with the new knowledge created by concentrated reading needing consolidation by active learning techniques. One example of such activity is the process of creating cognitive maps, whereby a student engages with, comprehends and builds their learning through skimming and flicking between pages of a traditional textbook, using spatial and kinaesthetic clues to locate content.

Another example of active learning is highlighting relevant parts of the text and inserting marginal notes. We found that these activities were not well supported by the Kindle e-Reader. Both of these processes are particularly used during assignments; and it is during preparation of such assignments students tended not to use the e-Reader.

Balanced against this is the important advantage of portability and anonymity of reading associated with the e-Reader, which meant study materials were accessed and read more frequently and in more numerous locations than traditional module material. This could be particularly important for part-time distance students who often find it difficult to fit study time into busy, active and mobile lives. We must be careful to encourage students to use these new ways of studying as additional to the active learning that takes place in a more fixed setting.

Interestingly, so far we have not seen any difference in the ways that students from the two different subject disciplines, Science and Social Science, approach their learning using the e-Reader. Both sets of students could read deeply but had problems with active learning; both sets of students found the portability and anonymity to be the key strengths; and both sets of students found similar weaknesses in reading with the Kindle, including problems learning from tables and diagrams.

For tutors the main advantages so far seem to be in the portability of the device, which allows them to support students whilst travelling or at their places of work.

With data still being collected in this study, and analysis on-going, we should have further findings to communicate later. We plan to report further at a later date.

**Acknowledgements**

We are very grateful to the four hard-working tutors who are participating on this project. Thanks is also due to our student participants, who are willingly trying a new way of studying and giving up their time to write regular diaries. The OU Anywhere team also deserve our thanks, for expediting conversion of our module materials to Kindle format. We also gratefully acknowledge our funders, the Higher Education Academy, the Scottish Quality Assurance Agency Enhancement Themes project and The Open University.
References


Anscombe, N (2012)'E-Reader revolution?’, *Engineering & Technology*, vol 7, no 2, pp 68-71


Carr, N (2010), 'The Shallows: How the Internet is changing the way we think, read and remember', Atlantic Books, London


Pattuelli, M C and Rabina, D (2010), Forms, effects, function: LIS students’ attitudes towards portable e-book readers, Aslib Proceedings, vol 62, no 3, pp 228 - 244
Qayyum, M A (2007), Capturing the online academic reading process, Information Processing and Management, vol 44, pp 581-595
Let Me Demonstrate: Towards a web-based application to encourage critical reflection amongst computing students

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ABSTRACT: The Higher Education Academy-funded Let Me Demonstrate (LMD) project involves the design and development of a student-driven, video-based, proof of concept application to encourage students to share the results of their learning with their peers in a safe and secure environment. The overall goal of the project is to investigate, from the perspective of students, the potential benefits and drawbacks of using video as a means of assisting students to communicate and critically reflect on their learning achievements, and to build an awareness of the importance of transferable skills as well as subject specific skills. The aim of this paper is to present some studies which led on to the design and development of the LMD prototype application. Longer term, given the knowledge sharing potential of the application, we intend to investigate the extent to which the application supports peer mentoring between students.

1 Introduction

Over the past fifteen years, Personal Development Planning (PDP), a process in which students are encouraged to monitor, record, build and reflect upon their personal development (QAA, 2009), has continued to establish itself within UK Higher Education. Indeed, evidence suggests that PDP should be embedded into the curriculum from an early stage so that its benefits can be recognized by students almost from day one (Miller et al, 2008). Consequently, many formal approaches to embedding PDP within the curriculum and within a wide range of disciplines, as well as the received benefits and drawbacks of these approaches, have been proposed within the literature, including web-based portfolios (e.g. Gush, 2006), the m-portfolio (Cotterill et al, 2006), as well as modules specifically geared towards PDP practice (e.g. Graham and Westwood, 2005).

Yet, in a recent study of PDP across three disciplines at Scottish HE institutions, Riley et al (2010) noted that critical reflection was more clearly evident within education and law courses, in which students were often required to provide evidence of their reflective process, than in computing courses, in which there were comparatively fewer requirements to incorporate critical reflection into modules. Instead, coursework assignments in computing have traditionally involved the submission of working code, and perhaps a brief explanatory report. As a result, it is entirely possible that some students will submit code which, while functioning, they may at best find difficult to explain to others (while also getting few opportunities to formally do so) or, at worst, simply do not understand, as the content may be the result of hacking together different code fragments until their program works, or through assistance from their peers. We find this particularly concerning, as many of our computing graduates enter the creative industries, in which a proliferating skill set that goes beyond mere technical competence is increasingly viewed as an essential requirement (Simpson et al, 2009), while others (e.g. Thomas, 2013) argue that continual technical innovations and structural changes within computing require constant (re)learning, and therefore promoting this mindset is vital.

As a result, we are continuing to identify and evaluate different approaches that can help students to evidence, document, and communicate the results of their learning over time. One approach we are beginning to take is the use of reflective videos, which we believe represent an ideal medium for this purpose. Video offers the potential for encouraging students to demonstrate their knowledge and to help them to gain presentational skills, both of which are obviously extremely valuable graduate attributes, in a novel and engaging way.
Of course, the use of video in academia is not new, as evidenced by educational channels on YouTube, iTunes U and so on, not to mention sites such as the Periodic Table of Videos (www.periodicvideos.com) which intend to introduce sciences to the masses. Yet, while anecdotal evidence gathered through informal feedback suggests that our students enjoy the process, the potential benefits of video in terms of critical reflection appear less clear cut.

The specific research questions that this project seeks to tackle are therefore as follows:

To what extent does the medium of video help to develop an awareness amongst our students, from an early stage of their degrees, of the significance of transferable skills relating to employability (such as critical reflection and the ability to communicate complex concepts) in addition to technical skills (such as the ability to use a particular programming language)?

To what extent do students themselves accept the medium of video as an approach to critical reflection?

Longer term, to what extent can the critical reflection of one student benefit other students - does the application act as a bridge between PDP and peer mentoring?

We begin with a summary of the results from a short questionnaire, followed by a discussion of two projects involving the use of video within two separate first year modules, before documenting the student-centered design and development of the Let Me Demonstrate (LMD) application.

3 Studies

3.1 Study 1 - Questionnaire

Given continual advances in digital technologies, there are already many possibilities for students to engage with online tools such as blogs, video sharing websites such as YouTube and Vimeo, and even social networking sites such as Twitter to evidence, reflect and communicate their learning to others. However, while these resources may be public, such activities are generally undertaken informally outside of the teaching environment and in the student’s own time, and therefore may go unnoticed by teaching staff. Hence, during the early stages of this project, we produced an online survey to investigate the extent to which computing students across Scotland undertook such activities outside organized classes.

As space restrictions prevent us from presenting the full results of the survey, we concentrate on the results related to the research presented in this paper.

Data Collection and Methodology

The survey was developed using Bristol Online Surveys (BOS) (www.survey.bris.ac.uk), and contained 17 questions (most of which were based on a Likert scale, with some free textboxes provided to allow respondents to clarify their responses). The following themes relevant to the research described in this paper were covered by the questionnaire:

Respondents’ background information, including degree programme, age, and if they were registered as an international student.

The extent to which respondents contribute to external resources (both online and offline), and the reasons why they do so;

The extent to which respondents would be comfortable undertaking certain extracurricular activities related to their learning, including: responding to a computing-related query on a public/private forum (i.e. open versus only used within their own department), writing a
public/private blog article, producing a video for a public/private video-sharing application, producing a public/private podcast, contributing computing-related content to Wikipedia, lab tutoring, and contributing to an academic journal/conference paper.

To comply with our University’s ethical procedures, all questions were optional. A link to the survey was distributed through an internal mailing list to computing students, to contacts in computing departments across Scotland, through the Scottish Informatics and Computer Science Alliance (SICSA) Education mailing list, and finally through the HEA Computing Update newsletter in May 2012.

Results and Discussion

A total of 284 responses to the questionnaire were received. Of those who provided their gender, 78.2% of respondents were male and 21.8% were female. 77.8% of respondents were between 18-25 years of age. Almost all respondents (81.3%) were registered as undergraduate students, although there was a mix between years (24.1% in Year 1, 26.7% in Year 2, 23% in Year 3 and 25.7% in Year 4).

Many of the respondents reported contributing to several resources, both online and offline. 110 respondents reported that they contributed an answer to a query on a Q&A site, such as Stack Overflow or Yahoo! Answers, while 44 respondents ran their own computing-related blog. 40 respondents contributed content to Wikipedia, while 28 uploaded content to video-sharing websites such as YouTube and Vimeo. The top three reasons for undertaking such tasks were: 1) to improve future employability prospects (33.7% high, 26.8% very high), 2) to develop self-confidence in particular subjects (44.4% high, 14.6% very high), and 3) to be able to reflect on acquired knowledge (44.6% high and 13.5% very high). On the other hand, financial rewards (23.1% high and 11.2% very high) and undertaking a specific activity because a classmate or another contact does so (27.5% high and 4.3% very high) were the lowest rated reasons.

In terms of the extent to which students would be willing to undertake certain extracurricular learning activities, responding to queries on forums (43.2% comfortable and 35.3% very comfortable for public; 41% comfortable and 37.1% very comfortable for private), followed by producing a blog article (42.8% comfortable and 24.8% very comfortable for public; 41.5% comfortable and 25.6% very comfortable for private) were the most popular responses, while producing a computing-related podcast was the least popular, with just 24.9% comfortable / 9.4% very comfortable for private podcasts and 27% comfortable / 7.2% very comfortable for public podcasts. Many of the reasons given in the free text section for this question were quite telling, particularly in terms of the perceived fragility of knowledge - for example, "I'm not skilled enough to contribute", "I am not confident enough in my own knowledge" and "I would not be comfortable in presenting myself as some sort of 'expert'...however, I would be happy to share what I have learnt with others as an equal, not as a form of authority". A much smaller number of participants noted the effort required to carry out such activities may prevent them from doing so, for example: "Many of the tasks would be quite time consuming, and that would be the constraining factor rather than the nature of production itself". Interestingly, whether or not the resource being contributed to is private or public appears to have little effect, generating conflicting responses. For example, in terms of benefits of private resources, one respondent noted: "[I am] much more willing to contribute to closed group mediums because constructive criticism is good [but] anything more is not cool". However, other respondents were more in favour of public resources, for example: "I respect people who make learning available for everyone. I don't like keeping learning private". A second respondent noted, "I don't like to post on forums where access is closed to the public. It tends to mean that it's not one I'm using regularly and thus don't understand the netiquette for the site. Eternal September is a real thing".
While this was a small scale study, and therefore providing strong conclusions would be premature, a few tentative observations can be made at this stage. Firstly, those students who carry out some of the activities described above recognized that the transferable skills they gain from doing so may benefit them in terms of future employment prospects, rather than for any financial rewards. On the other hand, respondents felt that the public nature of resources which support such activities may expose a (perceived) lack of, or fragile, knowledge, which may prevent those students particularly from the early stage of their degree in engaging with such resources. In order to further investigate these issues in the wild, we carried out two studies into the use of student-produced videos as reflective practice.

3.2 Study 2 - Student Workshop

Following on from the survey, we decided to run a workshop session involving a cohort of undergraduate computing and product design students to investigate the extent to which students accepted the video medium as a form of critical reflection, and to consider whether any of the issues students reported as part of the survey could be lessened through video. The results are discussed in more detail elsewhere (Martin et al., 2013) so a summary will be presented in this section.

Data Collection and Methodology

40 students took part of the workshop, made up of students from level one Applied Computing, students from an HNC computing course, and level two Product Design students. The workshop was undertaken as part of a core Data Visualization module, approximately halfway through a fourteen-week semester.

The workshop was designed as a three-hour practical session. Students organized themselves into groups (there were 12 groups in total), and were asked to choose a group assignment they had recently worked on. They were then asked to spend approximately one hour producing a reflective video explaining the code, and how they approached its development, using either the CamStudio screen-capturing software (www.camstudio.org) available in the School labs, or the video capturing technologies available on their personal laptops or mobile devices. No specific time limits or production constraints were set; rather, students were encouraged to describe their work in whichever way they felt was the most appropriate within the available timescale. In the second half of the workshop, students were brought together to watch the resultant videos, and were encouraged to feed back what they felt were the benefits and drawbacks of the approach in terms of contributing to their learning.

Results and Discussion

All groups produced a video, the shortest of which was one minute 26 seconds, and the longest of which was eight minutes and 23 seconds. Presentational approaches varied - some groups filmed the action on their monitor using a smart phone, while others used screen capturing and video editing software. In terms of explaining the code, some groups undertook a "think-aloud" protocol to walk through their code, while others used text annotations to highlight specific aspects.

Feedback from the session was mixed. Many students suggested that revisiting and explaining their code through video, sometimes two to three weeks after it was originally written, an extremely useful exercise in terms of positively impacting on their understanding. Students recognized the benefits of producing a video to improve communication skills, while also suggesting that undertaking the activity within their group added to the experience and contributed to team bonding. Finally, and particularly pertinent to our overall research,
some proposed that their videos could be shared, thus recognizing that their learning achievements may help others. On the other hand, embarrassment associated with the video medium - for example, being "in front of the camera" and hearing one's own voice - was seen as a significant drawback, as was a perception that the process supposedly exposes a (perceived) lack of, or fragile, knowledge. While we expected the videos to be rough and ready, many students expressed concern over the quality, either because they felt they were not given enough time, or due to particular technical issues such as the lack of appropriate microphones and difficulties extracting videos from mobile devices. Indeed, while it is possible to produce video content of acceptable quality using phone cameras and screen capturing software, the audio quality of such devices can be extremely variable. Additionally, despite the technical nature of the degree, several students had limited experience using video editing or screen capturing software, and therefore found the process quite difficult.

While the study was conducted within a short timeframe, the workshop enabled us to consider the potential role of student-produced videos as a means of critical reflection and in crystallizing knowledge for communicating to others. Such transferable skills are vital as graduate attributes, but it is important that students are provided with the opportunity to constantly improve those skills during the course of their degree. We believe that encouraging students to produce short reflective videos of their work at regular intervals is one such example. In the next section, we describe a semester long study, in which students were required to do just that as part of a specific module.

3.3 Study 3 - Embedding Video in a Module

A second evaluation was conducted as part of a Physical Computing module, a first year second semester module undertaken by students of Applied Computing, Computer Science, Product Design and Software Engineering students from a local college. In this module, students design and develop "off-desktop" interactive digital artifacts which do not fall into the traditional mouse, keyboard and monitor paradigm of computing. This makes it more difficult for students to share the product of their learning, unlike, for example, a web site or an application which can more easily be shared over the internet. As a result, we were keen to devise a method that allowed students to share the results of their projects through short video demonstrations and blog posts.

Data Collection and Methodology

Drawing on the overall philosophy of our research, we were keen to encourage students to share not just the results of their work, but also to critically reflect on their experiences producing their artifacts. We encouraged students to share content through "off the shelf" tools such as Wordpress and Vimeo. We held preliminary lab sessions on video creation, and highlighted the benefits of self-reflection and the potential cementation of knowledge through explication and externalization within those sessions.

Student groups were allocated in the first week of the semester. The first activity involved the production of "getting to know each other" videos, in which groups were asked to produce a 90-second introductory video. Following on from this, students were encouraged to generate video and blog posts throughout the semester to share the results of what they had produced with others, and to reflect on what they had learnt. None of the activities were assessed, so there was no direct impact upon grades.

At the end of the semester, a feedback session was held, in which students were asked to reflect on the benefits and drawbacks of using video.

Results and Discussion
There were six opportunities for groups to produce a video throughout the semester. In total, 57 videos were produced out of a possible 96 (refer to lmd.computing.dundee.ac.uk/?page_id=171 for examples), which we believe is a reasonable response rate for a voluntary set of activities. However, there was an inevitable tailing off of video creation over the course of the semester. In the first few weeks, all groups produced videos, but this decline to around 20% of groups towards the end of the semester. However, there was an interesting "spike" during week 6 as part of the "pressure project" in which students were required to rapidly design and build a simple, playful, system using a randomly assigned sensor. At this stage, 75% of the groups produced a video, which may suggest that students are more motivated to put in this extra work when they have produced something they want to "show off" and have put a significant amount of effort into, rather than midway through a project.

In terms of feedback, many of the benefits highlighted in the previous workshop were further confirmed. Students commented that they shared their videos not only with their classmates, but with those outside the course such as family and friends. Students also identified the potential peer mentoring benefits by commenting on the ability to learn from what other groups were producing and what they could learn from them. Additionally, several students mentioned that the process had brought them closer together as a group, as the process of preparing and recording videos involved all group members. Finally, several students commented on the potential for using the videos as a reference and revision tool.

On the downside, technical constraints were once again highlighted. For example, several participants commented that uploading videos to Vimeo was extremely time consuming. Again, embarrassment associated with the video medium - for example, being in front of a camera or hearing one's own voice - made for an uncomfortable process amongst some students; however, some groups compensated for this in imaginative ways by, for example, placing their project at the centre of the video (so that their faces were never on screen) or, in one case, through the use of sock puppets! Finally, some students struggled to see the point of the exercise, commenting that this is not an activity they would expect programmers to do. However, we would counter this by suggesting that, while they may not be tasked with producing videos in their future post-education careers, the experiences gained from critically reflecting and communicating the results of their work will lead them in good stead.

4 Towards the LMD Application

The main outcome of this project is the development of an internal student-driven video-based application, Let Me Demonstrate (LMD), which is hosted on a server within the School of Computing and subsequently enable students to share video demonstrations of their coursework, "how-to" guides, and advice for other students either currently studying within the School or who are thinking about doing so. We will also be making the source code available to other institutions to use within their own departments. In this section, we briefly describe the design and development of the application, and our future plans for implementing the system within the School and across the institution.

4.1 Design Methodology

We took a participatory design approach to the development of the LMD application. Participatory design involves all stakeholders from the early stages of the design process (in this case, students) in order to make sure that the final product will meet their needs (Muller and Kuhn, 2003). We engaged a student advisory group made up of five students (two MSc students and three undergraduate students from years 1-4) who brought their experiences and suggestions to early requirements gathering and prototyping sessions, three of which
took place in March 2012. In the sessions, students were asked to note down requirements for the system on sticky notes, which were then discussed as a group and pulled together into formal functional and non-functional requirements. Subsequently, a set of "mock-ups" for the system were produced. Example outcomes from the sessions are shown in Figure 2:

Figure 2 - The left image shows some of the requirements generated by the student advisory group, while the right shows a "mockup" screenshot subsequently discussed

4.2 Technical Design

A prototype of the system has been built using the open source Ruby on Rails web application framework (www.rubyonrails.org) running a PostgreSQL database. This framework was chosen as it provides the ability to manage large amounts of data safely and securely out of the box with minimal extra configuration, and is both customizable and extremely well supported through packages known as rubygems (third party add-ons developed by individuals which allow extra features to be added, such as user authentication, tagging facilities and so on). As a result, the framework offers many advantages over writing a bespoke framework from scratch, a process which would be significantly less cost and time effective. The system uses the ImageMagick (www.imagemagick.org) library for image compression, and the ffmpeg (www.ffmpeg.org) library to deal with the uploading of and conversion of videos to the dedicated server. Additionally, given the School’s background in accessible web design, the system has been designed with accessibility in mind - for example, Nomensa’s Accessible Media Player (www.nomensa.com/services/accessibility-and-inclusive-design/accessible-media-player) was chosen to act as the video player, as the controls are keyboard accessible and therefore do not solely rely on the user being able to use a mouse, while the states and properties of videos (e.g. current position of the video) are conveyed to assistive technologies such as a screen reader for blind users. The application is also designed using a responsive layout, which means that the interface changes based on whether the user is interacting with the application through a laptop, a desktop or their smartphone (see Figure 3 for an example).
Figure 3 - The left image shows the interface for the application as it appears on a desktop, while the image on the right shows the interface as it appears on a smartphone, such as an iPod or Android phone.

Currently, the prototype is installed on a dedicated server (Ubuntu 10.04 LTS) at the School of Computing, and can only be accessed from inside the School to reduce potential concerns over data protection and to ensure the student-produced content is safe and secure.

4.3 Functionality

The system allows a student to upload, tag, and comment on videos, similarly to public video-based sites such as YouTube and Vimeo. However, unlike the latter sites, students cannot add themselves to the system - only an administrator (e.g. a departmental IT manager or academic member of staff) is able to add a new user. This is to prevent non-students from adding content (whether videos or comments) to the system. Figure 4 shows an example video page:

Figure 4 - Example video page showing a sample video, tags, and comments

4.4 Development Challenges

In developing the LMD application, the predominant challenges we encountered can be put down to time and technical constraints. In terms of time constraints, and while functionality which is often time consuming to achieve is already built into the Ruby on Rails framework, developing a project of this size requires a significant amount of effort and capacity, which was not always available. Therefore, some of the features students proposed, such as allowing students to tag each other’s videos, could not be implemented within the project’s timeframe.

Technical challenges were predominately encountered when dealing with the uploading of video files. In keeping with the non-public nature of this project, content is hosted on a university server which, while a sensible concern in terms of data protection and security, added significant complexity (often already built in to existing video hosting services such as YouTube and Vimeo) to the website architecture. Although the application works reasonably well as a bespoke solution, the video functionality that we have implemented cannot compete with the usability and functionality of the more mature video hosting services. For example, the server often struggles to deal with unusual video formats, multiple uploads, and different aspect ratios, leading to “unfriendly” system error messages being presented back to the user. Additionally, we noted that, due to the third party tools we used, videos cannot be played in the Safari browser predominately used on Mac computers and the i-range of Apple products (iPhone, iPod and iPad), which is of course not ideal. Future versions will therefore concentrate primarily on the development of the unique pedagogical
and commercial aspects of the site, while allowing established services to handle video uploading, conversion, and hosting. This would also reduce the load on the server hosting the LMD application, since the video would be embedded rather than hosted locally. As noted in the semester long study, many of our students were happy to post their work publically, so it can be argued that the privacy concerns we had for this project are potentially unnecessary. This is an area we plan to investigate further in the coming months.

5 Future Work

As yet, due to the technical difficulties described above, we have not yet carried out a complete evaluation of the LMD prototype with our students. However, we are keen to solve these issues, embed the system within a cohort of modules in the next academic year, and explore what happens when student-produced reflective videos are released "into the wild" through the application and how our student population engages with the tool. In particular, and given related feedback from our students, we are keen to investigate whether reflective videos offer peer mentoring effects, in which students in earlier years (who are almost immediately exposed to a plethora of new programming concepts, several of which can often be extremely difficult to grasp) could benefit from being exposed to the experiences of their peers who once shared the same difficulties and fears that they are currently experiencing. This may also benefit the video producers; knowing that others are benefiting from one's own reflective practice may encourage the student to continue providing content and, ideally, add to their transferable skills as they do so. We are also keen to compare and contrast video against other methods of critical reflection, such as blogs, portfolios, or social networking tools, to gain an insight into which methods students feel are most beneficial as part of their learning. Finally, other Schools within our institution are keen to implement the LMD application on their servers, despite the technical constraints, due to data protection and ethical issues associated with videos hosted on public sites (for example, videos showing medical procedures).

6 References


Social media for student learning: enhancing the student experience and promoting deep learning

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ABSTRACT: Traditional Peer Assisted Learning (PAL) was introduced as a retention-motivated initiative in the College of Science and Engineering 5 years ago. Despite a high level of interest from students, there were several practical barriers that prevented many students from attending these sessions. As an alternative, an online space for Virtual Peer Assisted Learning (VPAL) was trialled. VPAL was found to have not only all the benefits of traditional PAL but also more that had not been anticipated. In this paper we will discuss the practicalities involved and the design choices that had to be made. We will also showcase some anonymised examples of academic and social dialogue between peers and outline some of the unexpected advantages of using VPAL over traditional PAL.

1 Introduction

Our use of social networks to facilitate learning originates from work done during one of the authors' previous roles of improving student retention within the College of Science and Engineering. One initiative was the introduction of PAL for Level 1 Computing Science and Level 1 Mathematics. The students were given an opportunity to meet informally with their classmates to work on tutorial questions or supplemental material in the presence of supportive senior student facilitators. The feedback received from the attending students was overwhelmingly positive. They enjoyed the sessions and they felt that their overall performance at the end of the year was much improved. In terms of student retention, the classes ticked many boxes including 'time on task', 'a senior role model', 'a supportive environment', 'sense of belonging', 'easing transition into university life', and so on. The main problem to be addressed was that attendance figures were rather low.

Most students at our institution enter under a 'general faculty' system whereby they study three subjects in their first year and do not specialise in their chosen degree subject until their Honours years. Class sizes can be very large (for example, level 1 Maths has a class size of approximately 500) and for each of their three subjects there will be combinations of lectures, laboratory sessions, tutorials and workshops. This means that there is no 'standard timetable'. Finding a suitable time within the 9-5 day to schedule PAL, not to mention booking a room for a non-compulsory course, was impossible, so the sessions were run at 5pm. A large proportion of our students commute and many others have part-time jobs or caring responsibilities, and for these students staying on campus in the evening may not be a viable option.

An obvious reason for not staying late on campus after a long day of classes in Glasgow during Semester 1, with the onset of winter, is that students are tired and want to go home when it is dark and cold. Less obvious may be the issue of investing time, physical and emotional energy into attending PAL for one, and possibly more, subjects can be complex for a student who is studying three subjects, each of which will have deadlines and assignments looming. Unless the benefits of attending voluntary PAL are real and immediate, heavy workloads for other subjects may override any desire to physically attend PAL. Although the three subjects in first year are weighted equally, students do not necessarily view them as having the same level of importance. So, even for highly motivated students, the decision of whether to attend PAL is not a trivial one to make. Furthermore, anecdotal conversations with first year students who may be shy, nervous or introverted have indicated that although they may not enjoy - or may even dread - participating in tutorials with their new classmates, they go along because they know that attendance is not
optional. Attending voluntary sessions is something that is harder for them to motivate themselves to do.

Being passionate about the benefits of peer learning, we were committed to providing this opportunity to all students by attempting to remove as many potential practical and emotional barriers as possible. At the Learning and Teaching Centre, we began to think more about using a semi-moderated online space for getting students together with the expectation that peer learning would occur organically. It was decided to use Facebook as the platform for VPAL for various reasons. We were encouraged by the statistics from our Digital Natives Survey 2011 and from several small-scale pilot studies that revealed that, of those incoming students surveyed, 97.6% had a Facebook account. We wanted to provide a space where the co-ordinators of the courses were not necessarily present in keeping with the format of a traditional PAL session, but unlike the set-up of the existing Virtual Learning Environment (Moodle) forum groups currently associated with each course. We also felt that the students would be more likely to engage with a technology that is fully integrated into their daily lives rather than an 'add-on' that is associated purely with their university life.

2 Structure of the Facebook groups

Before setting up social networks for academic purposes it is vital to have considered the following questions:
What exactly is the purpose of the group?
How private will the groups be? Will they be open, closed, secret, or private?
How will the groups be publicised?
What are the ground rules for posting in the group?
Who will moderate?
Who will be invited to join the group in addition to the student cohort?
What will happen at the end of the life-span of the group?

Currently, we have 6 active Facebook groups. These are as follows:
Level 1 Maths & Stats - 373 members
Level 2 Maths - 187 members
Level 1 Computing Science - 129 members
Level 2 Computing Science - 148 members
Level 1 Physics & Astronomy - 133 members
Level 1 Engineering Maths - 158 members

3 Types of conversation

3.1 Time-Critical conversations

Example 1

Student A: I am in urgent need of assistance my fellow mathers, i know it was asked before, but where is the OTC drill hall, and how do i get there? Where exactly is the math office and room 321E in the math building? Please explain in as much detail as possible; explain like i were a numpay. much appreciated.

Student B: OTC = B5 I thought you kids could all use the internet?! Student A: well as i mentioned earlier, i am a numpay. i tried searching for it there, but didnt know what otc stood for. any idea about the math school office? thanks

Student B: Officer training Corp I think, it's just at the Botany gate entrance but you have to use the side door next to the Joseph Black building...

Maths office I'm not sure but I'm sure anyone in the building would help you!

Student C: is the maths office not just on the ground floor of the maths building? that's where i've had to go for stats/math things a couple of times, you just turn left when you walk in
Example 2

**Moderator:** Update: "In view of the severe weather conditions, with very strong winds expected from 12 noon onwards, the University has decided to close with immediate effect. All staff and students are encouraged to return home as soon as possible." Drop-ins today are cancelled (sorry...) Tomorrow morning (Friday 9 December) drop-in will start at the earlier time of 9:15am. I am off home now, but will be checking emails regularly.

**Student D:** Hope you get home safe and avoid the worst of "Hurricane ******" (as it is being referred to on twitter).

### 3.2 Collaborative learning

**Student E:** I'm a little (okay, a lot) rusty with trigonometric identities. I'm doing a practice skills test and it's hit me with this bad boy.

Let \( f(u) = 2(u^2-u^4) \). Find \( f(\sin\theta) \).

So far I've got \( 2(\sin^2\theta-\sin^4\theta) \) but I don't know where to go from there. A cheeky hint would be appreciated! Thanks.

**Moderator:** Ok, cheeky hint coming up! Take \( \sin^2\theta \) out as a common factor

**Student E:** Now I've got \( \sin^2\theta(1+\cos2\theta) \). Stuck again. Is that even correct? After some more substitution I got \( \frac{1}{2}\sin^2(2\theta) \)

**Student F:** You made a mistake... Check the operator inside the brackets! The exact result is \( \sin^4(2\theta) \)

**Student E:** Actually, the answer I got was correct. It appears that you've made the mistake. :]

**Student F:** We've got \( 2(\sin^2(\theta) - \sin^4(\theta)) \). Factor out \( \sin^2(\theta) \) and we've got \( 2\sin^2(\theta)(1-\sin^2(\theta)) \) then we know that \( 1-\sin^2(\theta) = \cos^2(\theta) \) so, substituting we have\( 2(\sin^2(\theta))\cos^2(\theta) \) so, we conclude with \( \sin^2(2\theta) \).

**Student E:** That just made my eyes water. I can't make sense of it.

**Student G:** \( 2(\sin x)^2(\cos x)^4 = (2\sin x\cos x)(\sin x\cos x) = (\sin(2x))(\sin(2x)/2) = 1/2(\sin(2x))^2 \)

**Student E:** I think I know where you've gone wrong. \( 2\sin^2\theta\cos^4\theta \neq \sin^2(2\theta) \).

**Student F:** Yeah, I underestimated this question... And I did WRONG! lol.

**Student E:** Teamwork got us there in the end. Yeah!

### 3.3 Interactions between students

**Student H:** Hey everyone :) I've put myself forward to represent 1R, and the polls are now open, so it would be appreciated if you could go on moodle and vote for me!

**Moderator:** Tell us why we should vote for you!

**Student H:** Here goes then! ... Well Maths has always been my favourite subject, so if I was class rep there would be no doubt I would put all my effort into the job. I'm a really approachable character, and would have no problems meeting all the class and helping with
any problems. I've been part of groups from the senior cabinet at school, to hosting a radio station at my local hospital, so I'm a team-player, but I'm not afraid to take leadership when it's needed. I really keen on representing all of you so vote for me!!

**Student I:** 'senior cabinet' sounds scary!

**Student H:** Haha, na not really. My school basically does this instead of head boy and head girl, there's like 5 people chosen for it :)

**Moderator:** it sounds impressive whatever it is!

### 3.4 Messages of support

#### Example 1

**Student J:** just to let everyone know i've withdrawn from uni for medical reasons and will be back after the summer, hope to see a few of you for a pint then, cheers.

**Moderator 1:** Awww sorry to hear that. We'll all still be here when you get back though! Take care.

**Moderator 2:** Sending good wishes your way! Don't hesitate to get in touch with us if we can help in any way.

**Student K:** We'll miss you bro ♥

**Student L:** Pm your num mate since I can't get it in person..

-------------------------------------------------------------------------------------------------------------------

#### Example 2

**Student M:** Lol I'm well going to fail maths. Anyone else feeling the same? Or anyone wanting to make me feel better? That's my dreams of becoming a maths teacher dashed :L

**Student N:** I know through personal experience that it can all seem overwhelming, but try to understand the concepts and what's happening and then the method will come, it's not a race to see who is the most brilliant right away. You are obviously really interested in maths if you want to teach it, and that will always beat just being able to expertly regurgitate information. You'll get there

**Moderator:** Trig has a funny habit of being very difficult one minute and falling into place very nicely the next. The struggle right now will help you become a great teacher (trust me, I know these things!). And listen to Student 2 too, he's right.

**Student M:** Thanks :) I am just stressing because I have the infamous feeling of everyone is doing better than me and that I should be understanding more than I do already. I'm feeling a bit better now anyway I just had my usual little nervous breakdown today after I came out of my tutorial!

**Moderator 2:** I felt EXACTLY like that in Semester 1 when I was in first year. I came straight from fifth year at school and I don't think that helped my confidence. After Christmas things started to click into place - partly because it takes a wee while to get used to University maths and partly because I completely changed the way I studied! If you (or anyone else) would like to come to see me for a chat then please do not hesitate to email me and arrange a time. First Year IS hard work especially if you are seeing things for the first time (that
maybe the Adv Higher and A Level people have done a bit of already). Students in later years just say it is easy because they forget!! I’m here if you want any support. Take care.

Student M: Thank you! I feel a bit more at ease now. I just hope I get into the swing of it all!

3.5 Organising meetings / study groups

Example 1

Student N: Shout out to the guy I talked to after today's tutorial about sub entities who might be up for working together and to anyone in murano willing to unite forces and face the arch evil databases over the weekend.

Example 2

Student O: First off, best of luck to everyone in maths tomorrow. Second off, we have room 6A booked on Friday, from 1-4, for anyone as wants to join. I'll be there, Tom'll be there, Mary'll probably be there, so there's room for three more.

Student P: I'll probably skip along.

Student Q: I might be a tad late, but I'll hop along quick as I can.

Student O: Duly noted.

3.6 Current affairs

Student R: A nice article about the mighty glass and why we shouldn't be so enthusiastic about it yet. (Google Glass)

Student S: I especially like: 'So far, Google Glass is like that girl at school who you have a crush on, but have never spoken to. In your head you've built her up to be amazing, based purely on the fact that you want her to be amazing.'

Student T: Very similar to this (polaroid grey label glasses), that was unveiled 2 years ago. Although there wasn't a release date.

Student S: however I do see how google made a better product for an everyday use. I like both products

4 Benefits over traditional PAL

In many ways the conversations that have taken place in the Facebook groups have been exactly the type of dialogue that successful face-to-face PAL schemes hope to facilitate. By observing online peer discussions over several years, however, we have become aware of a number of distinct advantages that peer learning within social networks have over and above traditional face-to-face PAL. An obvious advantage is that the virtual space persists over holiday and re-sit exam periods when traditional PAL would be geographically infeasible. We summarise here some of the less obvious advantages that we have become acquainted with.

4.1 Online conversations need not take place in real time

Students can observe a conversation and enter into dialogue at a time that suits them without feeling pressurised to respond immediately. This affords a window of time where the
student can, for example, sit alone to concentrate and digest a conversation of an abstract nature. They may choose to go offline to do some mathematical working before participating fully in a discussion about finding a solution to a specific problem. We have also been told by students who do not have English as a first language that they appreciate the extra time afforded by the medium to understand the conversations and to construct their responses.

4.2 Conversations in VPAL extend to all group members

Face-to-face academic conversations between peers can be valuable not only for the students who are verbally contributing but also for those who are observing. In Facebook groups conversations are persistent and visible to all members. Students have intimated to us that they sometimes do not feel the need to respond to a post because by the time they have followed the dialogue any misunderstandings they have had have been cleared up. Often they acknowledge the earlier contributions in a particular thread by using the Facebook option of 'liking' a post. Conversely, in small group learning situations everyone who is physically present has to be involved in whatever topic is being discussed, irrespective of whether they have already mastered that topic or have a deep interest in learning more. Conversations deemed to be irrelevant or uninteresting in a Facebook group can easily be ignored completely or returned to when the need arises.

4.3 Provision of a more level playing field

To a certain extent, students can choose how to present themselves to their peers online. Facebook regulations require users to use their real name and their gender. Although not essential, the majority of users use a photograph that is easily recognisable. Beyond that users create their own online persona sharing as much or as little as they choose through their 'Likes' and their 'Education', 'Hometown', and so on. It could be argued that everyone is on a more level playing field in Facebook groups than in a campus situation. Furthermore, in traditional group learning settings, conversations tend to be instigated or dominated by the extroverted and the self-assured students. In this sense VPAL can seem a safer and more comfortable place for shy students to begin to assert themselves in academic conversations.

4.4 Constant availability and access

Online groups are available twenty four hours a day, seven days a week, throughout term time and holidays. Constant access means that whenever a group member would like to discuss a misunderstanding with, for example, a concept presented in a lecture, they can initiate discussion immediately rather than waiting until the next scheduled PAL session. In cumulative, step-wise learning settings such as Mathematics, it is vital for students to get any misunderstandings or confusion cleared up as soon as possible.

4.5 Collaborative learning and co-creation of knowledge

Collaborative learning and co-creation of knowledge can take place in traditional PAL but the number of participants will always be limited. We have observed members using the Facebook groups to launch collaborative documents that they co-create, such as compiled revision notes, using tools such as Google Docs. This appears to be a natural extension of VPAL that would be more difficult to engineer through the medium of PAL. The opportunity to be a co-creator extends to all members of the group rather than those present at one particular PAL session.

4.6 Developing written communication skills

Face-to-face academic dialogue amongst peers often involves a lot of wavy hand gestures, pointing and a lot of 'you know what I mean'-type statements. This interaction has its place but being forced to articulate oneself clearly and precisely, particularly in a scientific or
mathematical subject, is excellent training in terms of scientific writing. It also helps to build the skills required to ask lecturers unambiguous questions using the correct vocabulary. Our observations have shown that vague questions asked in the groups have had a much lower response rate than questions that are clearly worded. Equally clearly-worded responses are 'liked' by more users. It is important for students to use the correct terminology and vocabulary specific to the subject in question and posting queries on Facebook gives them good practise in expressing themselves accurately and sensibly.

4.7 The role of a facilitator in VPAL

The role of a facilitator in VPAL is less about administration and more about academic scaffolding. A small number of senior students have volunteered to facilitate some of our groups. These individuals contribute to discussions as and when they are available, and are not required to carry out the administrative tasks that need to be completed in a PAL session such as preparation for sessions, attendance monitoring, etc. It is important to note that although their presence is valuable and appreciated by all, a lack of senior student members has not prevented other groups from functioning successfully, unlike a traditional PAL session which would be rendered obsolete without a facilitator.

4.8 Online interaction does not mean isolation

Traditional PAL, when successful, gets students together in person and can scaffold academic and social peer relationships. A potential concern from colleagues regarding the use of virtual platforms for peer interaction was the idea that we should encourage students to interact in person rather than being physically isolated, sitting alone in front of a computer. However, a very large number of students are not actually using Facebook solely at home. They make use of group membership even while on campus, and an increasingly large number utilise mobile devices such as smart phones and tablets, so there is no suggestion that VPAL engagement correlates with social isolation. Indeed, building on the historical findings of one of our number as a retention officer that 'real world' connections can be hard to establish as a first year student once the fresher period is over, even if PAL had been provided, so these virtual connections would be better than no connections at all.

In any case we have been pleased to observe that connections that began online often became real life networks. We have witnessed students using the groups to arrange meetings for various purposes, such as forming study groups, arranging transport to the Observatory (Astronomy students) and social events. Anecdotally we know that there are students who are more likely to instigate conversations with others in a large lecture hall if they have already interacted online.

To deal with the very large class sizes, many courses are split into several smaller classes. This means that for many students it is entirely possible to go through the whole of first year without meeting anyone outside your tutorial group who are studying the same subject combinations. In the social networks it is possible to see faces and names of all group members; therefore a much larger pool of potential friends and contacts becomes available.

5 Future plans

For the next academic session, we plan to continue with existing groups and create new ones for the incoming cohort. In addition, we are in the process of creating groups for students who have accepted unconditional offers at Glasgow University. This will serve as a medium to welcome new students and provide pre-arrival social and academic information.
Using in-class small-group workshops as an assessment in large first year modules
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Abstract
This paper reports the preliminary findings from the final phase of a study designed to examine the use of small in-class group workshops in large first year psychology modules. The aim of this study is to develop, manualise and evaluate the workshops for use as both formative and summative assessment in large modules. The overall study includes three distinct phases. Phase 1 involved the development of a manual describing the delivery of in-class workshops in large first year modules. Drawing on a review of existing literature, as well as documentary analysis, observation and reflection the manual details the rationale for and implementation of this approach. The aim of this paper is to describe the workshops as a module of engagement and assessment and to report the findings of Phase 3, which examines the contribution of this approach as summative assessment and students’ experiences of the task.

Introduction

Psychology is a subject that is marked by large groups of students, particularly at first year and in introductory programmes. As a result there is a continuing interest in exploring best practice in the teaching of large groups. This research focuses on exploring a method of teaching that has the potential to positively impact on student engagement in large modules and to provide a creative method of assessment in these settings.

There is evidence of an almost systematic variation between the academic and social benefits of group work and more negative reports of student experience. As early as 1954 Eglash considered the role of group discussion in introductory psychology modules. This paper compared student achievement and perceptions of a group discussion based module as compared to a traditional module. The modules were taught by the same staff member and the article outlines the steps taken to ensure that delivery did not differ, other than in relation to the group vs lecture format. No consistent differences in achievement (based on test scores) were found between the two groups. However differences were identified in relation student perceptions of the modules. Eglash (1954) reported that higher ratings with regards to meeting the course objectives, instructional method enhancing the learning experience, and satisfaction with the grading procedure were evident among the lecture group. In contrast the only item on which the discussion group rated the module higher was the instructor's ability to stimulate independent learning. Qualitative feedback on the two methods was mixed, with negative comments regarding the discussion groups centring on students' confidence with the approach, with some participant reporting "This method won't work unless we are brought up in this system and are used to it, and unless everyone cooperates. It allows too much independent thinking." In contrast, positive comments on this approach (which were less common) included the benefits of independence and choice.

A more recent paper by Pauli and colleagues (2008) captured further evidence of this variation in impact and experience in the introduction to their paper. Positive contributions of group work for students include the development of generic and specialist skills, social integration, preparedness and improved retention, while benefits for the lecturer include less demand on resources. However Pauli et al also present some of the difficulties as they relate to student perceptions of group work, including group members not contributing equally and fear of negative assessment outcomes (particularly the way the outcomes of group work can impact on overall individual performance. They cite work by Livingston and
Lynch (2000), which suggested that these negative perceptions can be the result of myths about group work, and that these themselves have been influenced by poorly designed group tasks and assessments.

A number of authors have considered the methods and mechanisms by which group activities are introduced and implemented in third level education. A review by Meyers (1997) considered the strategies used to promote student participation and productivity in small group activities in psychology classes. A common strategy in the articles considered (74%) was the use of task structure to ensure engagement, including provision of information and readings in advance of the group interaction. However the provision of guidelines on the operation of the groups in advance was far less common (4%). Another common strategy to ensure engagement was the assessment of the group activity (55%) though this was predominantly via instructor assessment, with little use of peer and self-assessment. Pauli et al (2008) consider the range of factors that have been identified as sources of problems in group work and used these to develop a questionnaire for assessing negative experiences in group work. The questionnaire captures the factors that contribute to negative experiences in four factors; Lack of group commitment, Task disorganisation, Storming group, and Fractionated group. Scores on the subscales were found to correlate positively and moderately with group outcome (assessed as minor problems, major problems and group breakup) and perceived success in resolving problems (negatively scored). Interestingly students in second year were found to score lower on the scales than students in first year

1.1 The Present Study

The current research is part of a larger study on the use of group work in large first year psychology modules. The larger study builds on some of the issues highlighted in the research literature such as the role of group work in assessment, the need for a structured approach to group work and the potential contribution of group work in first year modules. The aim of the study is to develop, manualise and evaluate a system of in-class workshops for use as both formative and summative assessment. The overall study includes three distinct phases.

Phase 1 involved the development of a manual describing the delivery of in-class workshops in large first year modules. Drawing on a review of existing literature, as well as documentary analysis, observation and reflection the manual details the rationale for and implementation of this approach.

Phase 2 explored students' views on the use of in-class workshops as formative assessment in Year 1 of the research. Feedback was gathered from students (n = 134, 25.6% of the class) using an anonymous self-report questionnaire. Two-thirds of students (67.8%) strongly agreed/agreed that the activities helped them to learn and the workshops were regularly reported as one of the three most helpful aspects of the module. Students highlighted benefits in terms of learning and social interaction with others. However a number of issues were also highlighted including the need to increase students' motivation to participate in and contribute to the workshops and awarding marks for the work completed.

Phase 3 (which forms the basis for the current paper) evaluates the contribution of the in-class workshops as a form of summative assessment. Using a mixed methods design, students taking PSY10090 will be compared with students taking modules using more traditional approaches to assessment. Student feedback was gathered from both modules using self-report surveys incorporating qualitative and quantitative data in order to examine the role and experience of in-class workshops in contrast to other form of assessment.

Methodology
The current study is being conducted in University College Dublin (UCD), the largest university in Ireland with approximately 25,000 students. The specific context of research is a large first year module PSY10090 Introduction to Applied Psychology. As part of the UCD Horizons programme undergraduate students have the opportunity to take elective modules from outside their own school, in addition to the core and option modules that form their own course of studies. The target module, PSY10090, has been running as a general elective module in the Arts programme at UCD since 2009. General elective modules are designed to be suitable for students for a broad range of disciplines. The module is delivered in both semesters and typically 250 students take the module each semester. The workshops involve breakout into small groups of 5/6 students to complete a critical thinking task. Roving tutors move between the groups focusing on promoting and focusing group discussions.

Research Design
This study combines qualitative and quantitative research techniques in order to balance the limitations of one technique with the strengths of the other (Tashakori & Teddile, 2003). Specifically the study employed a concurrent survey design, which combines different data elicitation techniques in one phase of data collection. Data were collected using a self-report anonymous online survey which combines qualitative and quantitative questions to build a comprehensive picture of students’ experiences on the module.

2.2. Participants and Sampling
Phase 3 used an exhaustive sampling method, with the population of interest being all students registered in PSY10090 and the comparison module (PSY10050) in Semester 1 and 2 2012/2013. This sampling approach applied on the basis that the analysis was conducted on data collected as part of routine student feedback on the module. This paper focuses on Semester 1 as student feedback data for Semester 2 are not currently available. In Semester 1 2012/2013 there were 403 students registered in these two modules. Overall 83 students submitted feedback on the modules, representing a 20.6% response rate.

2.3. Survey Content
The survey used was an adapted version of the UCD student module feedback survey (SMFS). The SMFS is used to gather feedback on all modules in the university with greater than five students registered (though some derogations apply to modules with unique characteristics). There is a core group of seven questions that all module coordinators must include (five quantitative and two qualitative) and module can also select up to five additional questions for inclusion. For the purpose of the present study specific questions relating to assessment were included in the SMFS. Table 1 presents the questions included in the survey for these two modules. The quantitative questions were scored using a five-point likert scale with a score of 5 indicating strongly agree and 1 indicating strongly disagree.

<table>
<thead>
<tr>
<th>Question type</th>
<th>Question text</th>
</tr>
</thead>
</table>
| Quantitative  | I have a better understanding of the subject after completing this module  
I achieved the learning outcomes for this module  
The teaching on this module supported my learning  
The workload on this module was manageable.  
Learning materials made available on my module have enhanced my learning.  
The in-class activities in this module helped me to learn.  
The assessments to date were relevant to the work of the module.  
Overall I am satisfied with this module |
| Qualitative    | What was helpful about the assessment procedures in this module?  
What was unhelpful about the assessment procedures in this module?  
Identify up to three aspects of the module that most helped your learning  
Suggest up to three changes to the module that would enhance your learning. |
Findings

Given the aim of the paper, the findings are presented in two sections, the first describes the target module and in particular the group workshop, along with providing information on the comparison module as context for the evaluation. The second section of the findings presents preliminary findings from the evaluation.

3.1 Description of the modules

In order to contextualise the evaluation key details of both modules are presented. Both PSY10050 and PSY10090 are general elective modules, which have been developed within the School of Psychology to facilitate access to Level 1 (first year) psychology modules to students both within the psychology programme and across the university. While the modules are not limited to first year students this group make up the majority of the students registered for these modules in any given year. Both modules are offered in both semesters to maximise access for students in any given year. Table 2 below presents the aims and learning objectives of the two modules.

Table 2: Module aims and learning objectives

<table>
<thead>
<tr>
<th>Module</th>
<th>Aim</th>
<th>Learning objectives</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSY10090 Introduction to Applied Psychology</td>
<td>The aim of this module is to provide students with an introduction to applied psychology by examining some socially significant issues. The module will consider how psychology has conducted research on these topics in order to understand them. A key focus of the module is on supporting students to be confident consumers of research in journals and the popular media.</td>
<td>On completion of this module students should be able to: Describe and evaluate the application of psychological knowledge to specific issues. Identify the strengths and limitations of research in applied psychology. Critique research as it is presented in the popular media.</td>
</tr>
<tr>
<td>PSY10050 Introduction to Psychology</td>
<td>This module is designed to introduce students to the breadth of topics covered by the discipline of psychology. The module covers a range of theoretical approaches used in psychology to try to explain human thought and behaviour. The module will place the material in a real world context highlighting its application and relevance to everyday life.</td>
<td>At the end of this course students will be able to demonstrate an understanding of the core concepts underpinning a psychological approach to understanding human thought and behaviour. In addition, they will be able to describe the key constructs that facilitate an understanding of the various topics presented and to illustrate an ability to apply their learning to real life contexts. Finally, students should be able to compare and contrast the main theoretical approaches within selected topics.</td>
</tr>
</tbody>
</table>

PSY10050 and PSY10090 are delivered over 12 weeks in large lecture theatres which seat approximately 300 students, with two one-hour lectures per week. Neither module has associated tutorials. PSY10050 is led by two permanent members of staff, with some additional guest lectures on specific topics, while PSY10090 is delivered by a single permanent member of staff (SG). However in 2012-2013 PSY10090 was delivered by a senior postdoctoral researcher who had previous experience of the module, this was to facilitate the researcher to evaluate the module.

PSY10050 is assessed using two exam-based assessments, each worth 50% of the module grade. Assessment 1 is an in class midterm exam that takes place in Week 8 and includes multiple choice questions and short notes. Assessment 2 is an end of semester exam, which is again completed in class but in contrast uses a seen essay. Students are provided with
the essay titles prior to the exam, with the expectation that they will prepare their response in advance of the exam.

PSY10090 uses two continuous assessments. The first is a combined group workshop and individual reflection (40% of the overall module grade) which is completed in Week 7 (group element) and 8 (individual element). The second assessment is a written assignment on the representation of psychological research in the popular media (60% of the overall module grade). The second assessment requires the students to select from provided pairs of research articles and media reports and to prepare a critique which examines the strengths and limitations of the research itself and the way in which the research is represented in the media report. The students are required to draw on principles of critical thinking in completing this assignment.

The group-based assignment in PSY10090 focuses on the critical evaluation of a research article and combines a group-based workshop and an individual reflection. Within the module it aims to support the development of critical thinking and reflection, with a particular focus on developing the skills needed for the final assignment. At the beginning of the semester students are given the opportunity to either nominate a group of five classmates or to be assigned to a group by the lecturer. They are encouraged to meet as a group outside of the class context and prior to the workshop in Week 7 they have the opportunity to meet to discuss the article which will form the basis of the workshop. Students are advised of the selected article at least one week in advance of the workshop. To facilitate a more dynamic workshop the class are split in two, with half of the groups attending one lecture slot and the remaining groups attending the other slot that week, with two different articles used as the basis for the group task. Roving tutors are brought into the lecture theatre to facilitate discussion among the groups, though they are encouraged not to answer specific questions about the task but to provide general guidance on the task at hand.

The focus of the task is the completion of a critical thinking worksheet on the selected article, which involves addressing the five questions outlined in Table 3 below. The group are required to brainstorm each question before agreeing a final response to each one. The worksheet used includes space to note both the key points of the brainstorm and the agreed response to each question. The individual element allows students to share their individual views on the article and to also note their views on the experience of working in the group. The grade for the overall group-based assignment is calculated with 40% awarded for the group worksheet and 60% for the individual reflection.

<table>
<thead>
<tr>
<th>Critical thinking skills</th>
<th>Representative question</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interpretation</td>
<td>What is the main claim or message being presented?</td>
</tr>
<tr>
<td>Analysis</td>
<td>What is the source of this claim?</td>
</tr>
<tr>
<td>Evaluation</td>
<td>What type of evidence is being used to support the argument?</td>
</tr>
<tr>
<td>Inference</td>
<td>Are there possible alternative explanations?</td>
</tr>
<tr>
<td>Explanation</td>
<td>What is the most likely conclusion based on the evidence?</td>
</tr>
</tbody>
</table>

In order to support students to develop the skills necessary to engage with the workshop and the reflection a number of introductory sessions focus on the key elements of critical thinking, reflection and group work. In addition a practice session is held whereby the lecturer works through a sample article within the lecture setting, generating discussion around the key critical thinking questions that will form the basis of the group worksheet. Students are advised of the sample article in advance and encouraged to prepare for the practice session and to participate in an open discussion in the session.

3.2 Preliminary Findings from Phase Three
To begin the average scores on each of the quantitative questions included in the SMFS were calculated and compared across the two modules (PSY10090 and PSY10050). Figure 1 presents the mean scores on each of the nine questions. The graph suggests few differences between the modules, with a more noticeable gap in relation to students' understanding of the subject (higher for PSY10050) and in relation to the contribution of module activities to learning (higher for PSY10090). However following completion of a series of two-tailed t-tests it emerged that the only significant difference was in relation to understanding of the subject ($t = 2.2576$, $df = 81$, $p = 0.0237$).

![Figure 1: Comparison of ratings for PSY10090 and PSY10050 on quantitative questions](image)

In addition to examining the mean scores for the items, the frequency of responses was also examined and is presented in Tables 4 and 5 below.

### Table 4: Proportion of valid responses to quantitative questions in PSY10090

<table>
<thead>
<tr>
<th>Statement</th>
<th>Mean (SD)</th>
<th>Strongly Agree/Agree</th>
<th>Not Sure</th>
<th>Disagree/Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>I have a better understanding of the subject after completing this module</td>
<td>4.4 (0.66)</td>
<td>94.4%</td>
<td>3.8%</td>
<td>1.9%</td>
</tr>
<tr>
<td>I achieved the learning outcomes for this module</td>
<td>4.11 (0.7)</td>
<td>84.9%</td>
<td>13.2%</td>
<td>1.9%</td>
</tr>
<tr>
<td>The teaching on this module supported my learning</td>
<td>4.13 (0.79)</td>
<td>83.1%</td>
<td>13.2%</td>
<td>3.8%</td>
</tr>
<tr>
<td>The workload on this module was manageable.</td>
<td>4.19 (0.62)</td>
<td>92.5%</td>
<td>5.7%</td>
<td>1.9%</td>
</tr>
<tr>
<td>Learning materials made available on my module have enhanced my learning.</td>
<td>4.08 (0.83)</td>
<td>82%</td>
<td>12%</td>
<td>6%</td>
</tr>
</tbody>
</table>

192
The in-class activities in this module helped me to learn. 3.81 (0.9) 75.5% 11.3% 13.2%
The assessments to date were relevant to the work of the module. 4.17 (0.85) 83% 11.3% 5.7%
Overall I am satisfied with this module 4.14 (0.85) 82.4% 11.8% 5.9%

The responses echo the generally positive scores evident above in that the majority of students responded positively to all of the statements for both modules. Interestingly the item that showed the largest proportion of negative views in both modules was The in-class activities in this module helped me to learn.

Table 5: Proportion of valid responses to quantitative questions in PSY10050

<table>
<thead>
<tr>
<th>Statement</th>
<th>Mean (SD)</th>
<th>Strongly Agree/Agree</th>
<th>Not Sure</th>
<th>Disagree/Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>I have a better understanding of the subject after completing this module</td>
<td>4.03 (0.81)</td>
<td>76.7%</td>
<td>20%</td>
<td>3.3%</td>
</tr>
<tr>
<td>I achieved the learning outcomes for this module</td>
<td>4.13 (0.78)</td>
<td>76.7%</td>
<td>23.3%</td>
<td>-</td>
</tr>
<tr>
<td>The teaching on this module supported my learning</td>
<td>4.03 (0.93)</td>
<td>76.6%</td>
<td>20%</td>
<td>3.3%</td>
</tr>
<tr>
<td>The workload on this module was manageable.</td>
<td>4.24 (0.79)</td>
<td>86.2%</td>
<td>10.3%</td>
<td>3.4%</td>
</tr>
<tr>
<td>Learning materials made available on my module have enhanced my learning.</td>
<td>4.23 (0.82)</td>
<td>93.4%</td>
<td>3.3%</td>
<td>3.3%</td>
</tr>
<tr>
<td>The in-class activities in this module helped me to learn.</td>
<td>4.10 (1.03)</td>
<td>83.3%</td>
<td>6.7%</td>
<td>10%</td>
</tr>
<tr>
<td>The assessments to date were relevant to the work of the module.</td>
<td>4.27 (0.74)</td>
<td>90%</td>
<td>6.7%</td>
<td>3.3%</td>
</tr>
<tr>
<td>Overall I am satisfied with this module</td>
<td>4.10 (0.92)</td>
<td>76.6%</td>
<td>16.7%</td>
<td>6.7%</td>
</tr>
</tbody>
</table>

In addition to comparing the ratings for the two modules on these key questions it is also possible to compare ratings within PSY10090 over the past three years, with the point of interest being the possible impact of making the group workshop a summative assessment (as occurred in 2012-2013). Figure 2 below presents the ratings on common questions from the last three years (though only one semester’s ratings are available for this year). There is some evidence of trends including decreases in relation to understanding, supportive teaching and increases in achieving learning outcomes and the positive impact of activities.
A final possible impact of the move to include the group assignment as a summative assessment relates to the number of students registering for the module. Figure 3 presents the registration figures by semester and overall and it appears that registration figures have dropped in 2012-2013 by almost 20%. It is suggested that this may be the result of students' ability to review module details (including assessment) in advance of registering for a module at the start of the year. It is clear that registration figures in 2010/11 and 2011/12 were stable and were overall higher than evident in 2012/2013. However it is also possible that the introduction of a mandatory study skills module in 1<sup>st</sup> Arts in UCD in 2012/13 may have impacted on the uptake of this module also, as students had less choice of electives as a result. However it is noted that comparable decreases were not noted in PSY10050 for this year.
Discussion

As noted at the outset of this paper the current research is part of a larger study on the use of group work in large first year psychology modules. The larger study builds on some of the issues highlighted in the research literature such as the role of group work in assessment, the need for a structured approach to group work and the potential contribution of group work in first year modules. The aim of the study is to develop, manualise and evaluate a system of in-class workshops for use as both formative and summative assessment.

This paper has focused on the contribution of in-class group workshops as a form of summative assessment. In describing the group workshops it is noted that a number of aspects highlighted in Meyers’ (1997) review on promoting participation in group activities have been addressed in the design of the workshop. Detailed information is provided in advance to support participation, however only limited information on group functioning was provided (as part of the introductory skills class). Also while the group activity is assessed this is predominantly instructor led assessment, though the individual reflection does reflect an element of self-assessment, as students are invited to reflect on the group process. However there is clearly scope to consider adopting a more formal approach towards self and peer evaluation of the group interaction. In addition the research by Pauli et al (2008) considered in the introduction might serve as a resource allows the lecturer to maximise the functioning of the groups and in turn students’ experience in the groups.

Looking to the formal evaluation of the module, students taking PSY10090 were compared with students taking a module using more traditional approaches to assessment (PSY10050). Student feedback was gathered from both modules using self-report surveys incorporating qualitative and quantitative data. While the analysis of the qualitative data is ongoing the quantitative data highlighted few differences between the students’ ratings of the two modules. The lack of difference in ratings of module assessment and in-class activities across the two very different modules may reflect a lack of added value from the more intensive assessment used in PSY10090 or the comfort that comes from familiar
assessment techniques (which the more traditional assessments might represent). However it is also possible that an inherent concern regarding group work (which is evident in the existing literature) might be undermining students' experiences in PSY10090. It is hoped that an analysis of the qualitative survey data will provide further insight into these issues. Nevertheless, it does appear that the introduction of the group-based summative assessment may have had an impact on registration figures, however as noted above other contextual factors might also be contributing to these changes.

Conclusion

The data gathered on students' experiences of the introduction of a summative group-based assessment might suggest that the reaction to this approach has been somewhat mixed, though it should be noted that the scores remain generally positive (averaging at around 4 out of 5, with 5 indicating strong agreement with the key statements). However there is limited evidence of any added value from this more active approach to assessment, though it is noted that the findings presented above may lack the insight that the findings from the qualitative data gathered might provide. Considering the implementation of formal summative assessment in relation to the published literature it appears that a number of key issues noted by writers in this area have been addressed. Nevertheless there is scope to further examine the barriers and supports for effective group assessment in these large undergraduate modules.

References


Student lead assessment in level one computing: Encouraging reflective practice

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ABSTRACT: Assessment of computer programming tends to be based upon product rather than process: a student’s competence in programming is commonly measured via the final code produced. However it is also important to encourage students to reflect on the software development process and hone the skills they need whilst producing code. Particularly it is important to teach the act of programming and avoid dependency on any one given language: throughout their careers, computing professionals need the ability to learn new and emerging languages. For students to be autonomous in their learning, they need to be equipped with self-reflection and analysis skills and encouraged to take a deep approach to their learning. This paper discusses two techniques used in an introductory computing course to develop students’ reflective practice: (i) triadic assessment (Gale et al, 2002) of weekly deliverables via group work and (ii) a student generated multiple-choice class test. The design and evaluation of each technique is described and discussed.

Triadic assessment of group work
Group work is a common component in many undergraduate modules in computing as well as in other disciplines. There are sound practical and pedagogical reasons for creating this learning experience (Thorley & Gregory, 1994). However, assessing group work can be challenging, particularly in a situation where different group members assume different roles and responsibilities within a group. For instance, what is an equal share of work? How do you weigh up design input against technical contributions? One technique to encourage students to address these questions and to take a lead role is peer assessment. Its benefits include a rich engagement and understanding of the assessment process (McDermott et al, 2000). The learner is also encouraged to engage in higher cognitive skills (Fallows and Chandramohan, 2001) and critical evaluation (Anderson et al, 2001).

Motivation for Group Work
Professional software developers commonly work in teams, whether employed in fledgling start-ups or in multinational companies. The stereotype of the lone ‘geek’ absorbed in the act of programming, with little input from others, is a misconception. For this reason, the skills associated with working in a team are vital to a successful career in software development. Team projects are therefore commonplace among undergraduate computing degree programmes, but they can be problematic. The social skills required to manage workload distribution, to schedule team meetings and to deal with different levels of ability can be challenging to students.

In the context of computing, it is likely that a team project will involve the development of a specified piece of software in response to a brief or consultation with a client. With this approach, team working skills are placed in a motivating context. However this can present a challenge to academic staff assessing the resultant coursework. Assessing the products against the learning objectives identified is straightforward; allocating a mark for each of the team members for the process performed can be contentious.

One approach is to treat the team as a whole and give the same mark to each team member. This places pressure on the team to function: if one member fails to deliver, the whole team suffers. Unfortunately it also presents the opportunity for students to ‘hide’ from individual assessment. There is a risk that weak performances by students may be identified only by individual summative assessment and may not by on-going formative assessment. Providing each student with an individual mark that reflects their contribution to the project would appear to be the fairest approach. Defining contribution then becomes important. Over the course of many weeks of creative thinking, designing, implementing, crafting and refining, the key questions remain - who did what? What was it worth? What grade should each person get?
Peer assessment benefits and issues
The practice of students taking an active role in their assessment has shifted from the "enthusiastic innovators" to wider practice (Raadt et al, 2007). Topping et al (2000) define peer learning to be: "an arrangement of peers to consider the level, value, worth, quality or successfulness of the products or outcomes of learning of others of similar status". Peer assessment has been applied widely in areas including: educational psychology (Topping et al, 2000), teacher training (Sluijsmans et al, 2002), electrical engineering (McDermott et al, 2000), and computer science (Sitthiworachart and Joy, 2004; Hamer et al, 2009).
Peer assessment can be usedformatively or summatively for individual or group work. Kennedy (2005) described the application of a peer assessment process when distributing a 'group mark' between group members, highlighting a number of issues including: the ability of students to objectively assess team members' contributions, marginalisation of weaker students, and the tension generated by peer review. Kennedy reported large standard deviations in peer assessed marks indicating there was little consensus among students on what criteria are being assessed. He also asserted: "the task of assessment is the responsibility of the instructor. Students ought not to be placed in a position where they can influence their own grades or those of their peers" (Kennedy, 2005). This presents a fairly strong opinion about the role of the student with respect to assessment.
Within the School of Computing in the University of Dundee, one style of peer review process adopted involves each team member anonymously submitting a review form to award a mark to each of their team members. This enables a weighting and distribution of the 'group mark' to each of the individuals; the effect of the review process is capped at one grade to manage extreme reviews. This process suffers from some of the problems identified by Kennedy (2006) but has value in identifying problems with teams and disproportionate contributions. The benefits of peer assessment include the ability to reflect and critically appraise work similar to that which the reviewer is producing (Sitthiworachart and Joy, 2004). Nonetheless two associated issues to be resolved when using peer assessment relate to depth and influence. Firstly, there can be a problem with the summative reflection about contributions to a substantial piece of coursework if the assessment criteria are too shallow. Secondly, social standing in groups has been observed to have an impact on peer assessment, such as when a group marks up a weakly-performing classmate. The next section describes an approach to enhancing peer assessment designed to address the shallowness issue and the social standing issue whilst retaining the value of reflection.

Peer assessment in the 'Data Visualisation' module
Data Visualisation is an introductory undergraduate module that draws together a number of key curriculum areas. Human Computer Interaction Design comprises a set of skills and knowledge that enable students to build interactive computer systems that fit the needs of users. Consideration of social, legal and ethical issues are essential when working with users and developing technology that may have an impact on wider society. These are learned in the context of 2D graphics and data visualisation project work. By pulling these together with an appropriate scenario, students can learn in an environment in which they are applying their emerging skills to tell stories with data and communicate information to specific people with specific needs.
This module runs in semester one and for many students it may be their first experience of computer programming. Learning to program is problematic for many and hence a tight feedback cycle is desirable. For this reason in 2011 the Data Visualisation module was designed with a weekly piece of coursework, to enrich the learning experience. The weekly coursework activity is triadically assessed (Gale et al, 2002). This involves three distinct complementary phases. (i) self-reflection: the learner is encouraged to reflect on the item of course work. (ii) peer review: the learner is required to critically appraise the work of their peers offering constructive feedback. (iii) tutor feedback: is the last stage of the process. The tutor is in able to consolidate the assessment process by offering feedback and endorsing a final grade. Taken together, these offer opportunities for rich and varied feedback.
Figure 1 - Weekly assessment cycle
Figure 1 depicts the weekly assessment cycle for Data Visualisation. Assessment begins with the issue of a team assignment and the allocation of review groups (Thursdays). This takes place following a two hour block of teaching in the morning and precedes the afternoon lab session. In the lab the teams have some protected time to work together on the assignment. Students are supported by the module tutor and lab tutors (students who studied the module the year before). Following the lab, time is allocated for individual contributions and refinement prior to submission at 12 noon the following Tuesday. Coursework is submitted to an online community website (www.openprocessing.org). This website allows the viewing of 'sketches'\textsuperscript{12} submitted and comments to be left below a 'sketch'. At the point of submission, each team member is required to comment on what they have contributed and what they have learned in undertaking the piece of coursework. This is the first part of the triadic assessment: self-reflection. Each person is also required to view and comment on the work uploaded by the other teams in their review group. The assessment process is then pulled together in the Thursday review session. For the last 30 minutes of the teaching block the class arrange themselves into review groups each comprising three teams (depicted as triangles in Figure 2). Each team's work is briefly presented and discussed by the review group before the group arrives at a mark and provides some qualitative feedback, which is recorded on paper form. At the end of this review session, each review group reports back briefly to the entire class, sharing the highlights of what has been discussed, including exceptional work and lessons learned. This is the second part of the triadic assessment: peer review. The final stage each week is for the tutor to review mark sheets completed by the review group against the sketch submitted and award a mark and comment for the coursework. This is the third part of the triadic suite: tutor feedback.

Figure 2 - Arrangement of teams and review groups
The module requires a lot of preparation, presenting and group discussion of peers' work. At the outset, clear guidelines are given on the expectations of students participating in these activities. When commenting on peers' work, they are encouraged to adopt a "two stars and a wish" structure to the feedback: identify two strengths and one thing that could be improved.

\textsuperscript{12} The software the students are producing are developed using a language called Processing. Programs developed in processing are referred to as sketches to reflect there provisional and rapid development.
improved. Asking questions and giving comments are highlighted as indications of interest and engagement in ideas being presented. Constructive criticism indicates that a reviewer has thought about the work sufficiently to form an opinion and to identify areas for extension. Learning to take criticism as a compliment is an important skill. This encourages students comments criticism and peer grading to be less based on social standing in the group and more grounded in the work being reviewed.

Evaluation of triadic assessment
At the beginning of the following semester, feedback was obtained from students about the module as a whole. Students were given 18 statements each with a 40 millimetre line next to it to graphically depict a spectrum from strong agreement (0) to strong disagreement (40). There were 36 responses. The following three statements were relevant to assessment:

1. "I found the weekly discussions about coursework with other groups interesting."
The mode response was 5 (out of 40), indicating strong agreement. In more detail, 66% of students agreed, 5% were neutral and 20% disagreed.

2. "I found it motivating to have a say in my peers' coursework marks through weekly discussions."
The mode response was 20, indicating neutrality. In more detail, 56% of students agreed, 25% were neutral and 20% disagreed.

3. "I don't believe it is within my role as a student to be involved in assessing coursework."
The mode response was 35, indicating disagreement. In more detail, 17% of students agreed, 14% were neutral and 69% of students disagreed.

These responses are generally positive, with students broadly agreeing that it is within their role to take an active part in assessment, and more than half feeling benefit from the weekly discussion. Although the most frequent response to motivation from influence over a peer's mark was neutrality, over half the class were in broad agreement with this statement.

As a complement to the visual analogue scale questionnaire, there was an opportunity to give free text comments via post-it notes in response to one further question: "If you only had a week to do the module again, what should we keep (green post-it) and what should we lose (red post-it)?"

A sample of responses relevant to the assessment methods is given next:

[green] "Group work: love all the working in groups. Learn so much better. Good fun, much more effective. Loved the course!"
[green] "Assessing other people's work because it gave a chance to discuss their sketch with others."
[green] "Group work - good to have other people on your group that can help you, but that is only if your group was a good one."

[red] GROUP MARKING
[red] Not much time to complete assignments

Reflections on triadic assessment
Considering the evaluation data and observation throughout the semester, there is evidence to suggest a triadic approach to assessment has been successful in the context of this introductory computing module. On reflection, the most successful part of the process was the 30 minute face-to-face review session. Listening to the various discussions that took place throughout the semester, it was encouraging to hear students critically appraise and defend their work. In the majority of cases when the tutor amended marks, it was to provide a higher mark than that suggested by the peer review group.

One aspect of the process engaged with to a lesser extent was the online discourse through comment threads. In several cases, there was a good degree of engagement with conversations about work posted. However the majority of the cohort quickly realised that there was little consequence for not engaging in this part of the process and failed to comment regularly. It may be that this virtual engagement is less important when there is a
regular face-to-face session, or it may be that the absence of direct effect on grades resulted in it being perceived as a low priority activity. With a favourable response from students in this activity the following year we sought to engage the students further in the assessment process.

2 Student-generated assessment
The majority of the Data Visualisation module's assessment is via practical group work. Nonetheless there is a need for an element of individual assessment to ensure students have adequately engaged in the module materials and are equipped to build on their learning as they progress through their chosen degree path. End of module exam conditions and summative assessments are typical and often involve a huge amount of work to create, evaluate and assure quality. In the 2013 Data Visualisation module, we were keen to meet the same objectives but with as great a degree of flexibility as possible, preferably engaging the students in the process of exam setting as much as possible. There are significant risks and benefits to this type of strategy and is important to stress that this was 'breaking new ground': work remains to be done in subsequent years.

One technique was used to punctuate long teaching blocks and to encourage students into a 'review' state of mind: the use of the one-minute paper (Angelo & Cross, 1993). In this, the tutor asks the students a small number of questions at the conclusion of the class to identify the key things learned and any areas of uncertainty. Deriving assessments from these student-generated questions essentially means that their reflections on their own learning lead the assessment process.

Student-generated class test
As adopted in the Data Visualisation module, five questions relating to the material being taught were posed at the end of teaching various key concepts. Students were given a few minutes to write their responses on an answer sheet. They were then given several more minutes to discuss their answers with their neighbours. Finally the questions were discussed by the group as a whole and answers offered by the students. Answer sheets were also collected for brief review by the module tutor, who gained a sense of what understanding the class had at that stage. The main purpose of the activity is to get people thinking and resolve any ambiguities about key points of the session.

This change of activity proved to give a valuable disruption at several points throughout a three-hour block of teaching. To create an authentic individual assessment for the end of the module, we adapted this approach further. Initially it was made an out-of-class activity to assist students in their revision. Students had to write and submit their own revision questions and produce their own answers. The number of questions submitted in this form was disappointing so next we moved it to take place during each teaching block. As the semester progressed, we increased this to several times throughout the teaching block: at various points students were required to generate a multiple choice question that they felt was relevant to the current topic being discussed. To create a question is more demanding than just to provide an answer and this encouraged a similar review state to the minute paper techniques used previously.

The actual implementation of this student-led assessment relied on paper forms that students filled out in class. They were required to provide their recommended answers in addition to the questions. One technical platform that would potentially provide the functionality required is PeerWise (Denny et al, 2008) this will be explored in future years. The decision not to take a computer based solution (which would massively speed things up) was rejected for the following reasons. Over the past five years there has been a massive increase in the number of laptops and smart phones in the lecture theatre. Indeed we can be confident that when assembling review groups (3 groups of 3 students) there will be at least one laptop, allowing the group to browse the internet. Requiring all students to have internet access in a lecture does risk marginalising some students. There is also a degree of simplicity and clarity from a simple pen and paper activity. There are also advantages to a tangible collection of questions. However as the semester progressed we
collated an ever-enlarging folder of questions visible in the undergraduate labs that contained all the questions created so far. This allowed students to get a feel for what their peers were asking and what the class test may look like. Finally, all questions and answers were verified by module tutors and a class test produced from this set of student-generated questions, comprising 60 multiple-choice questions. The module covers 6 broad topic areas and a sample of 10 questions from each topic was picked.

Evaluation

The number of questions received varied form topic to topic. The greatest number of responses (43) was from the first topic covered: 'Introduction to Processing'. The smallest number of responses (12) was from a topic in mid semester: 'Interaction and Transformation'. The mean response was 21 questions per week which from a class of 70 leaves room for improvement. Increasing engagement and improving response rates from students is an area requiring further attention. There is potential to increase the amount of feedback students are receiving with regard to their questions as the current model is not very responsive. In practice this resulted in around 20% of the questions in the final test not being generated by the students. In future years the previous year's bank of questions will be used to meet any shortfalls. The cohort presented with a wide range of abilities and this is reflected in the questions offered: this allowed for a good range of difficulties in the final paper.

The test was well received by students and resulted in a mean test score of 66%. An evaluation took place at the end of the course using Visual Analogue Scales (VAS) (Cowley & Youngblood, 2009) to discern agreement or disagreement with a number of statements relating to the class generated test the results are in table 1.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 &quot;I wrote my test question each week&quot;</td>
<td>38</td>
<td>24</td>
<td>38</td>
</tr>
<tr>
<td>2 &quot;I feel it is not my place to write test questions&quot;</td>
<td>12</td>
<td>24</td>
<td>32</td>
</tr>
<tr>
<td>3 &quot;I enjoyed having a role in our class test&quot;</td>
<td>64</td>
<td>20</td>
<td>16</td>
</tr>
<tr>
<td>4 &quot;WI found writing test questions helped me understand the lecture material&quot;</td>
<td>60</td>
<td>18</td>
<td>22</td>
</tr>
<tr>
<td>5 &quot;I'm happy for my peers to have a role in my assessment&quot;</td>
<td>56</td>
<td>16</td>
<td>28</td>
</tr>
<tr>
<td>6 &quot;I found the class test easy&quot;</td>
<td>68</td>
<td>18</td>
<td>14</td>
</tr>
<tr>
<td>7 &quot;I found the class test reflected the course content&quot;</td>
<td>82</td>
<td>12</td>
<td>6</td>
</tr>
<tr>
<td>8 &quot;The class test was very difficult&quot;</td>
<td>4</td>
<td>14</td>
<td>82</td>
</tr>
</tbody>
</table>

Table 1 - Evaluation of class test results (all values are percentages) n=50

It is very encouraging that 82% of respondents felt the class test reflected the course content. One of the key motivations for this approach to a summative end of module assessment was to ensure authenticity. It is also encouraging to see broad agreement with statements relating to assessment being within the role of the students. 60% of students found the act of writing questions helpful in assisting their understanding.

The low level of response and open admission to this in the evaluation remain problematic. With large class sizes and little resource to support these activities, an approach of incentivisation must be taken. The current model gives students a good chance that they will be presented with one of their own questions in the test. This may be further enhanced by a greater level of feedback throughout the process. The difficulty of the test is also an interesting challenge. This should in theory be self managing, since students provide questions at a level that challenges them. In practice the survey responses indicate the test did not present sufficient challenge. It is important to interpret results as student perceptions. The class test was externally moderated to insure appropriate level but perceived to less challenging. The importance of the final result may also be balanced against the degree of engagement the students have had. With this model of assessment the final test and
resultant grade is only a part of the process. The process of question generation serves to enhance the learning opportunity offered significantly.

Reflections on student-generated assessment
This student-generated assessment system worked well and resulted in a genuine final summative assessment that reflected the learning students had engaged in. Reviewing the final paper against the module specification, the questions generated did fit well with the intended learning outcomes. The potential benefits of an electronic system are great and this will be explored in future. One of the biggest issues with the paper-based system was the inability to readily give quick feedback if a question was poorly formed or presented with an incorrect answer. In several cases, the only way to achieve this was when speaking to the class as a group. An online system would also offer the ability for students to review and comment on questions, making attaining this degree of engagement from students difficult.

Conclusion
Assessment is a crucial part of learning. Students often see this as an intimidating, external mechanism designed to match their abilities to a number which ranks them in the class. This can be one purpose of assessment but only a small part of what it can achieve. Bringing the student to the heart of assessment has the potential to improve a broad range of skills, and ensures they understand and are empowered to take ownership of their learning. The peer review process described in this paper supports the process with a number of levels of engagement, from online commenting to face-to-face discussion. It has been a positive experience that has given our students the opportunity to obtain feedback (input and reflection) from assessors closer to their level of expertise and who have faced similar challenges. Placing an end-of-module summative assessment in the hands of the student cohort has also been valuable. There was no evidence of students gaming the system: the questions they produced reflected well on their interpretation of the teaching materials and clearly resonated with the groups. It has encouraged students to produce a valuable self-reflective perspective on their own work.

References
Empowering students in transition: Peer mentoring to support first and final year students

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ABSTRACT: This paper suggests a framework for empowering first and third year students as they transition into and out of undergraduate study. The Transition In, Transition Out (TiTo) program supports students using peer mentoring. TiTo is designed to build the five senses of student success described by Lizzio (2006): connectedness, capability, resourcefulness, culture and purpose and enhance productive learning approaches for both first year students and third year mentors. The TiTo model was implemented in the discipline of psychology at two Australian universities. It was embedded into the face-to-face curriculum at one university and offered as an option in a blended learning delivery at the other university. Results from a mixed-method evaluation support the effectiveness of TiTo. This paper describes the model and summarises the outcomes for first and third year students in the face-to-face program. The presentation will examine the challenges encountered during implementation and provide access to the resources developed as part of the project.

1 Background

"The main benefit of having a mentor was the continued support I received; nothing was a bother or too hard or silly to ask and that was fantastic."
First year student

"Being a mentor helped me realise I am a lot more capable than I thought."
Third year mentor

Knowledge about the first year experience is now well developed. Research in the area provides clear evidence that in order to retain and support students, we need to engage them, connect them with staff and each other and provide meaningful, timely feedback early in the first year of study (Kift, 2009; Lizzio, 2012; Tinto, 2000). While considerable attention has rightly been given to the first year transition, equally important are the issues that arise for final year undergraduate students as they transition out of the program and move on, either to further study or work. Lizzio (2012), in his lifecycle model, describes the shifting focus from first to final year as a movement from the establishment of student identity to the increasing development of a graduate identity. While the transition issues are clearly different for first and final year students, some of the needs of both groups can be met through peer mentoring. This paper reports on a project designed to simultaneously focus on first and final year transition in a mutually beneficial peer mentoring model embedded within the curriculum. The model, developed to empower both cohorts of students, is known as Transition in, Transition out (TiTo).

2 The TiTo model

The TiTo model is designed to simultaneously support first year and third year students as they transition into and out of university. The model is a flexible approach, with the capacity to be adapted for both face-to-face and blended learning contexts. TiTo supports the development of a university student identity for commencing students and the transition to a graduate identity for final year students.
In the embedded TiTo model presented in this paper, mentoring was integrated into the first year curriculum, provided to all first year students in face-to-face classes. We also trialled TiTo in optional online discussion groups in a blended learning context. In both learning environments, mentors worked with a small group of five to six first year students on development of skills to support completion of assessment tasks for eight weeks of the semester. In the face-to-face approach mentors attended the second hour of tutorials and worked with the students, while the tutor stayed in the room. The focus in both the face-to-face and blended learning contexts was on supporting the academic skill development to assist first year students to complete their assessment on time and with confidence. In addition, psychosocial transition issues were covered, such as building connections to other students and practical aspects, such as access to support services.

Mentoring was also embedded into the third year curriculum in a capstone course, providing all third year students, regardless of GPA, with the opportunity to be a mentor. Mentors were provided with an intensive training package, supplemented by weekly classes to prepare, debrief and share ideas. In the online context mentors received ongoing support throughout the program via weekly online real-time sessions facilitated by their third year lecturer.

Central to the delivery of TiTo in the face-to-face mode are tutors, who remain in the classroom during the mentoring sessions. Tutors are responsible for providing both formative and summative feedback based on observations of the mentors' behaviour in class and contribute a small component to the third year students' mentoring practice grade. In addition, at the end of the semester tutors write a reference for their mentors, outlining the mentoring program and summarising the mentor's strengths. In the online mode the first year course examiner supports the third year mentors and monitors the mentored group discussions.

The TiTo model brings together the following two frameworks to support transition and engagement and develop effective learning styles:

The five senses of student success framework (Lizzio, 2006), which summarise the major predictors of successful transition for first year students;

2.1 Five senses of student success

The five senses of student success framework summarises the variables that predict first year student satisfaction, engagement, and retention in higher education (Lizzio, 2006, 2012). The model is based on student needs in five areas capability, connectedness, purpose, resourcefulness, and culture and can be used to shape transition strategies, without prescribing solutions (Lizzio, 2006). The five areas of student success and their characteristics are outlined in Table 1.

The model suggests that succeeding as an undergraduate student involves mastering specific curriculum knowledge and skills (capability). The knowledge to be mastered by students typically includes understanding of core concepts, theories and research in one's discipline area. The additional skills and qualities expected of the student are typically outlined in the university's graduate attributes. The Five Senses model advocates that student success at university involves more, however, than the acquisition of discipline-based knowledge and skills. According to Lizzio (2006), the quality of the relationships a student develops with her peers and staff as well as her affiliation with the university (connectedness) will impact on her wellbeing and her experience at university. Additionally, a strong sense of purpose provides the commitment and persistence necessary to flourish. Successful students also know how and where to seek support for their learning, through
university resources as well as policies and procedures, and can balance study with work and family commitments (resourcefulness). Finally, successful students develop a cultural competence in the context of higher education (culture), understanding the core values and ethics of the institution.

Table 1
Five Senses of Student Success

<table>
<thead>
<tr>
<th>Sense</th>
<th>Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capability</td>
<td>Understanding the student role and mastering academic knowledge and skills</td>
</tr>
<tr>
<td>Connectedness</td>
<td>Building relationships with peers and staff, as well as identifying with the university</td>
</tr>
<tr>
<td>Purpose</td>
<td>Setting realistic goals, engaging with the discipline and developing a sense of vocation</td>
</tr>
<tr>
<td>Resourcefulness</td>
<td>Knowing about university resources and procedures. Balancing work, life, and study.</td>
</tr>
<tr>
<td>Culture</td>
<td>Appreciating the core values and ethical principles of higher education</td>
</tr>
</tbody>
</table>

Helping students build capacity in each of these five areas is a complex task and unlikely to be accomplished by a single initiative or confined to the first year of the program. Nevertheless, TiTo was designed to address all five needs for first year mentees. Although the five senses framework was developed to explain the first year experience of transition, in this project we wondered if the same senses could be used to support third year students in their transition out process. The TiTo model was therefore designed to enhance the same five senses in third year mentors.

2.2 Learning approaches

As well as building the five senses of success, TiTo was designed to support the development of effective approaches to learning. The TiTo model employed Entwistle's (2000) tripartite model of deep, strategic, and surface learning.

A deep approach to learning is associated with a desire to understand material, a tendency to link ideas and seek relationships to other knowledge, the use of evidence to draw conclusions, and an intrinsic motivation for study. The strategic approach is associated with time management and planning, confidence, competitiveness, consciousness of the assessment demands, and a capacity to monitor progress. A surface approach is characterised by lack of direction, reliance on rote learning, and fear of failure (Walker, Spronken-Smith, Bond, McDonald, Reynolds, & McMartin, 2010).

Small but significant changes over time have been noted in deep, strategic and surface learning amongst first year students following purposeful curriculum change (e.g., Walker et al, 2010). TiTo was deliberately designed to develop deep and strategic approaches to learning and minimise surface learning for first year mentees. In helping mentors better understand these aspects of learning it was anticipated that third year mentors would also experience improvements in these areas, however it was unclear to what extent the mentors' learning approaches would be influenced, given they were in the final year of their undergraduate study.

2.3 Research aims

The project described in this paper evaluated the effectiveness of the TiTo model in supporting transition and developing productive learning approaches for both first and third
year year undergraduate psychology students. It was hypothesised that both first and third year students would show enhancements on the five senses of success by the end of the TiTo program as well as improved scores on deep and strategic learning and a reduced dependence on surface learning.

3 Method

3.1 Participants

The TiTo model was implemented in the undergraduate psychology curriculum at two Australian universities. Only the data from one university, where classes were provided on campus, is presented in this paper. Of the 276 students enrolled in the first year course, 231 (166 females and 65 males) provided pre and post-test data.

Mentors chose mentoring from a range of choices in a third year capstone course. Of the 53 students in the third year course, 39 choose the mentoring option and 34 (23 females and 11 males) provided pre and post-test data for the project.

3.2 Measures

Both first and third year students were surveyed at the beginning and end of semester on a range of measures. The three measures reported in this paper are described below.

Five senses of success

The Five Senses scale was adapted from the work of Lizzio (2006). The scale consisted of 73 items measuring the five subscales of capability 21 items, connectedness 16 items, purpose 12 items, resourcefulness 19 items and culture 5 items. All items are responded to on a 5-point Likert scale (1 = strongly disagree to 5 = strongly agree). The psychometric properties of the five subscales show satisfactory internal reliability estimates ranging from .80 for culture to .92 for capability (Sharrock, 2011). The internal consistencies of the subscales in the present study were capability $\alpha = .91$, connectedness $\alpha = .87$, purpose $\alpha = .85$, resourcefulness $\alpha = .90$ and culture $\alpha = .80$.

Learning approaches

Learning approaches were measured using the Approaches and Study Skills Inventory for Students (ASSIST; Entwistle 2000). The ASSIST measures three learning approaches: deep, strategic and surface. The scale includes 52 items, each of which is answered on a 5-point Likert scale (1 = agree to 5 = disagree). Because high scores on this scale indicate disagreement, all responses were reversed. The deep approach comprises 4 sub-scales (seeking meaning, relating ideas, use of evidence and interest in ideas), the strategic approach comprises 5 sub-scales (organized studying, time management, alertness to assessment demands, achieving and monitoring effectiveness) and the surface approach comprises 4 sub-scales (lack of purpose, unrelated memorizing, syllabus-boundness and fear of failure).

The ASSIST has demonstrated a sound factorial structure as well as good internal reliability and predictive validity (Gadelrab, 2011). The internal consistencies of the three learning approaches scales in the present study were deep $\alpha = .85$, strategic $\alpha = .86$ and surface $\alpha = .79$.

Peer mentoring evaluation
Three forced-choice questions were administered to evaluate student perceptions of the peer mentoring program in terms of its perceived impact on academic performance and sense of belonging. Students were also asked how much they enjoyed peer mentoring. Each question was answered on a 5-point Likert scale (1 = strongly disagree to 5 = strongly agree).

Further data on student perceptions of the mentoring program were gathered via open-ended questions on the best aspects of the mentoring program and suggestions for improvements. Follow up focus groups were also used to explore benefits and challenges of the TiTo model.

4 Results and discussion

4.1 Five sense of success

A comparison of scores for first and third year students on the five senses of success scale at the beginning and end of semester are presented in Tables 2. Not surprisingly third year students typically had higher self-reported scores on the five senses at the start of the semester than the first year students, illustrating the progression from student to graduate identity. As Lizzio (2006) argues, these senses predict success in the early stages of study, so students who succeed in the program and progress to third year would be expected to demonstrate higher scores on these sub-scales.

Table 2
Repeated Measures t-test Five Senses of Success Scores for First and Third Year Students

<table>
<thead>
<tr>
<th></th>
<th>First Year</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M (SD)</td>
<td>Post-test</td>
<td>t(230)</td>
<td>p</td>
<td>d</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Connectedness</td>
<td>3.64 (.58)</td>
<td>3.81 (.67)</td>
<td>-5.27</td>
<td>&lt;.001</td>
<td>-.27</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Culture</td>
<td>3.95 (.61)</td>
<td>4.11 (.57)</td>
<td>-4.09</td>
<td>&lt;.001</td>
<td>-.27</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Resourcefulness</td>
<td>3.60 (.58)</td>
<td>3.69 (.65)</td>
<td>-2.67</td>
<td>&lt;.005</td>
<td>-.15</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Capability</td>
<td>3.68 (.56)</td>
<td>3.75 (.64)</td>
<td>-1.82</td>
<td>.07</td>
<td>-.12</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Purpose</td>
<td>3.81 (.57)</td>
<td>3.80 (.63)</td>
<td>0.18</td>
<td>.86</td>
<td>.02</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
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<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Third Year</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>M (SD)</td>
<td>Post-test</td>
<td>t(33)</td>
<td>p</td>
<td>d</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Connectedness</td>
<td>3.92 (.60)</td>
<td>4.19 (.56)</td>
<td>-3.88</td>
<td>&lt;.001</td>
<td>-.47</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Culture</td>
<td>4.34 (.56)</td>
<td>4.34 (.54)</td>
<td>-.08</td>
<td>.938</td>
<td>.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Resourcefulness</td>
<td>3.88 (.51)</td>
<td>4.07 (.59)</td>
<td>-2.61</td>
<td>&lt;.05</td>
<td>.34</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Capability</td>
<td>3.90 (.51)</td>
<td>4.06 (.57)</td>
<td>2.29</td>
<td>&lt;.05</td>
<td>-.30</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Purpose</td>
<td>3.77 (.68)</td>
<td>4.00 (.59)</td>
<td>2.61</td>
<td>&lt;.05</td>
<td>-.36</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. All subscales measured on 5-point scale 1 = disagree, 5 = agree

The only sub-scale on which the third year students reported a lower mean score than the first year students at pre-test was purpose. This may reflect third year concerns about life beyond graduation and some anxiety at the start of their final year about career preparedness. By the end of semester it was encouraging to note a significant increase for third year students on this dimension.

In terms of within-group comparisons, Table 2 shows increases for first year students on four of the five sense of success over the course of the semester, with small but significant increases on connectedness, culture, and resourcefulness. Although an increase was noted for capability, this was not a significant change. No significant change was noted for purpose. At third year increases were noted on four of the five senses of success: connectedness (with a moderate effect size), resourcefulness, capability, and purpose. No
change was observed on the dimension of culture. It is of note that the pre-test score on this dimension was, however, comparatively high.

4.2 Learning approaches

At the beginning of the semester first year students reported less productive learning approaches than third year students, with slightly lower deep and strategic mean scores than the third year students and higher surface learning scores, although interestingly the same patterns of responses was evident in the two groups, with surface learning being the favoured approach by both first and third year students. Strategic learning was the second most used learning approach and deep learning the least well used. By the end of semester this pattern was reversed for both groups, suggesting the development of more productive approaches to learning.

Deep and strategic learning were increased for first year students (with large effect sizes), and surface learning decreased (moderate effect size) as shown in Table 3. All changes between pre- and post-test were significant at .001 level. An almost identical pattern was noted for third year students, with significant and large increases noted on deep and strategic learning. A small and non-significant decrease was noted on surface learning for third year students.

Table 3
Repeated Measures t-test Learning Approach Scores for First and Third Year Students

<table>
<thead>
<tr>
<th>Learning approach</th>
<th>Pre-test M (SD)</th>
<th>Post-test M (SD)</th>
<th>t(230)</th>
<th>p</th>
<th>d</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>First Year</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Deep</td>
<td>2.22 (.57)</td>
<td>3.99 (.58)</td>
<td>-27.23</td>
<td>&lt;.001</td>
<td>-3.08</td>
</tr>
<tr>
<td>Strategic</td>
<td>2.33 (.61)</td>
<td>3.64 (.68)</td>
<td>-16.80</td>
<td>&lt;.001</td>
<td>-2.03</td>
</tr>
<tr>
<td>Surface</td>
<td>3.15 (.61)</td>
<td>2.79 (.64)</td>
<td>4.81</td>
<td>&lt;.001</td>
<td>.58</td>
</tr>
<tr>
<td><strong>Third Year</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Deep</td>
<td>2.34 (.62)</td>
<td>3.83 (.51)</td>
<td>-8.37</td>
<td>&lt;.001</td>
<td>-2.63</td>
</tr>
<tr>
<td>Strategic</td>
<td>2.55 (.81)</td>
<td>3.74 (.52)</td>
<td>-6.11</td>
<td>&lt;.001</td>
<td>-1.75</td>
</tr>
<tr>
<td>Surface</td>
<td>2.99 (.59)</td>
<td>2.80 (.57)</td>
<td>1.06</td>
<td>.30</td>
<td>.33</td>
</tr>
</tbody>
</table>

注. 可能的分数范围为所有项目为1-5。

4.3 Student evaluation of TiTo

Both first and final year students evaluated the program favourably (Table 4). The majority of first year students enjoyed the program (70%) and perceived it to positively influence their sense of belonging (61%) as well as their academic work (59%). Despite this generally positive perception, it is of note that 20% of students expressed a neutral position and a further 20% did not support the value of the program either academically or socially.

Third year mentors evaluated the program even more favourably than the first year students. All the mentors enjoyed the program. The majority perceived the program to support their academic work (85%) and nearly all (94%) felt it helped their sense of belonging.

Table 4
Evaluation of TiTo by First and Third Year Students

<table>
<thead>
<tr>
<th>Evaluation items</th>
<th>Percentage of students</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Strongly agree</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

210
The quantitative evaluation of the program summarised above was supplemented by responses to open-ended questions about the best aspects of mentoring and suggestions for improvements. In addition, a focus group was used to explore a range of themes. Perceived to be the most helpful aspect for first year students was the opportunity to work in small groups, facilitating opportunities to build relationships with colleagues, and reinforcing the importance of the connectedness sense of success. Also highly rated were the study tips that mentors shared.

The most common suggestions to improve mentoring for the first year students related to the skills and knowledge of specific mentors, clarification of the mentor role, and reducing the duration of the mentoring session. As one student commented,

I thought that there was a little too much emphasis on peer mentoring - it was definitely helpful and interesting but we often got through the content very quickly and spent ages just sitting around chatting instead of doing work.

A smaller group of first year students did not see peer mentoring as relevant to their learning experience. For example, one mature age student who had already completed a degree commented, "having a much younger person with less university and life experience try to mentor … felt a little condescending."

Mentors, who generally reported a high level of satisfaction with the program, praised TiTo for developing a sense of purpose and skill development. As one student commented, "the mentor program helped me build up vital life skills in leadership and communication…it was rewarding learning how to facilitate a group because I can see how that will be used in my career". Also rated highly were self-awareness and self-reflection and better insight into teaching and lecturing. As one mentor noted, "it was helpful to reflect on the concepts and advice I was providing the first year students as it applied to myself", and be more self aware of my strengths and weaknesses and most importantly how I could improve my approach".

The most common reflections on the most challenging aspects of their mentoring experience related to managing group dynamics, encouraging the engagement of mentees, and overcoming anxiety and nervousness. A smaller group of mentors requested additional clarification of the mentor role. Several mentors also commented on the classrooms within which mentoring took place. In some cases these were not large enough to accommodate the mentoring groups.

In summary, the implementation of TiTo in face-to-face classes was associated with positive outcomes for both first year students and their third year mentors. Significant positive changes were noted for both groups of students across the senses of success measure, with both groups reporting increases in connectedness and resourcefulness by the end of

<table>
<thead>
<tr>
<th>First Year (N=247)</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Peer mentoring helped the quality of my work</td>
<td>19</td>
<td>40</td>
<td>20</td>
<td>13</td>
</tr>
<tr>
<td>Peer mentoring helped me feel like I belong</td>
<td>20</td>
<td>41</td>
<td>23</td>
<td>10</td>
</tr>
<tr>
<td>I enjoyed peer mentoring</td>
<td>30</td>
<td>40</td>
<td>16</td>
<td>9</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Third Year (N=34)</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Peer mentoring helped the quality of my work</td>
<td>41</td>
<td>44</td>
<td>15</td>
<td>0</td>
</tr>
<tr>
<td>Peer mentoring helped me feel like I belong</td>
<td>53</td>
<td>41</td>
<td>6</td>
<td>0</td>
</tr>
<tr>
<td>I enjoyed peer mentoring</td>
<td>74</td>
<td>27</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>
the semester. These results suggest that the embedded TiTo model is associated with the development of important relationships as well as an enhanced understanding of university resources and procedures for both groups of students.

Importantly, TiTo was also associated with significant change on all three learning approaches for both groups. Significant increases were reported on both deep and strategic learning and a decrease on surface learning for both first year students and the third year mentors. These changes indicate a move to more productive ways of learning. The significant changes for third year students are particularly pleasing as they suggest that a focus on this aspect in their mentoring can flow through to their own practice.

A limitation of the study design is that it does not allow us to claim mentoring produced the changes demonstrated in this study. As with any educational intervention, cause and effect is a complex relationship. It is, however, reasonable to conclude that the TiTo package, embedded into the first and third year curriculum, supports positive change. Focus group data collected from both first year students and mentors underscored the value of the approach and provided valuable information to inform continued refinement of the model. In particular, attention needs to be paid to managing first year students’ preparation for and engagement in the mentoring process as well as acknowledging the needs of mature age students.

References

Gadelrab, HF (2011) Factorial structure and predictive validity of the Approaches and Study Skills Inventory for Students (ASSIST) in Egypt: A confirmatory factor analysis study. 
Electronic Journal of Research in Educational Psychology, vol 9, pp 1197-2095
Kift, S (2009) Articulating a transition pedagogy to scaffold and to enhance the first year student learning experience in Australian higher education. Final report for ALTC Senior Fellowship Program. NSW: ALTC. Retrieved from:
Brisbane, Australia: Griffith University.

PATH: A student-led, online course selection and programme builder

Paul Horrocks and Greg Tyler
The University of Edinburgh, Scotland

ABSTRACT: Providing a truly ‘flexible’ curriculum presents a number of challenges in course and programme design. Representing the available module choices while ensuring that the type of information provided is what students actually require is a continuing
challenge and, with the innate flexibility of degree programmes in Edinburgh, is an essential resource for students. In this paper we introduce and explore the rationale for and development of "PATH": a student developed web-based solution aimed specifically at aiding course selection. The service allows students to post course recommendations and reviews, giving them the ability to provide publicly available feedback on their studies. We explore how the openness of this feedback system has been of aid to both students and staff and then look to potential expansion for such a system, including exploring an unreleased prototype that allowed students to dynamically plan and adjust an entire degree programme.

1 Introduction

At many Universities, students are given the opportunity to choose the courses or modules that they wish to take. This is certainly prevalent at the University of Edinburgh where many degree programmes are very flexible and cater to the student’s preferences. In the University of Edinburgh School of Mathematics, we found that students often found course selection difficult and/or confusing due to the limitations of the available information. The University provides course information through its Degree Regulations and Programmes of Study (DRPS) website, which is not aimed specifically at students. The general layout and design of DRPS is not streamlined for course selection: course listings are an unorganised jumble of codes, including modules that have not been offered by the University for years. Alongside this, the information available on courses is simply not designed to aid the course selection process, some information being too specific to be useful and some not specific enough. Course descriptions on DRPS are written by staff as general overviews of the course, often from the point of view of an academic. Hence, these descriptions often just provide a list of topics the course will cover. For a student who has not taken the course yet, this information is rather redundant, as it does not contextualise the course in terms of the student’s academic background or the type of learning experience they can expect. The flexibility of degree programmes available can be a ‘double-edged sword’ for students as the wide selection can quickly become difficult to manage. Pre-requisites, co-requisites and other requirements impose restrictions on students’ choices: in particular this can lead to problems in later years when students discover that they do not have the requirements for the higher level courses they want to take. DRPS displays pre-requisites purely as a list on each course page rather than displaying the related course dependencies. It also does not help students look to the future to identify and note the courses that are prerequisite for the one a student is considering.

<table>
<thead>
<tr>
<th>Entry Requirements (not applicable to Visiting Students)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Pre-requisites</strong></td>
</tr>
<tr>
<td>Students MUST have passed: (Practical Calculus (MATH08021) AND Solving Equations (MATH08022) AND Geometry &amp; Convergence (MATH08003) AND Group Theory: An Introduction to Abstract Mathematics (MATH08034) OR (Applicable Mathematics 1 (MATH08027) AND Mathematical Methods 1 (MATH08029) AND Applicable Mathematics 2 (MATH08031) AND Mathematical Methods 2 (MATH08032)) OR (Mathematics for Informatics 1a (MATH08046) AND Mathematics for Informatics 1b (MATH08011) AND Mathematics for Informatics 2a (MATH08002) AND Mathematics for Informatics 2b (MATH08047)) OR (Applicable Mathematics 1-2 (Physics) (MATH08049) AND Mathematical Methods 1-2 (Physics) (MATH08022)).</td>
</tr>
<tr>
<td><strong>Prohibited Combinations</strong></td>
</tr>
<tr>
<td>Students MUST NOT also be taking Mathematics for Informatics 4a (MATH08046) OR Mathematics for Informatics 4b (MATH08049) or Applicable Mathematics 4 (Inf) (MATH08014) or Probability (Year 3) (MATH08004)).</td>
</tr>
</tbody>
</table>

Fig 1.1: Pre-requisites on DRPS.

The School has also suffered from poor student feedback on courses, an essential source of guidance for curriculum development (Brookes, 2003). Previously, course feedback has been provided by students through online forms that are handled internally. Staff note that the population returning these forms has been low, whilst students are disheartened by their feedback disappearing into the system with no explicit response or subsequent action. As students leave their courses at the end of each year, it is often hard for them to see any changes resulting from their feedback. This cycle continues ‘year-on-year’, as students
become more disheartened at not seeing any changes in response to their course feedback, stop participating in course surveys and the department has even less indication of what they should be improving. Course selection is affected by feedback too; without any form of public feedback, students often only hear about others' opinions on a course from gossip, and through social media (Brennan and Williams, 2005, p.55). This does not necessarily provide a fair or useful view of the course, as frequently only the negative feedback makes its way into these informal and social media networks.

In this paper we introduce PATH, a website designed exclusively around students' needs. It focuses on two key areas: 1) providing students with suitable resources to choose their courses and 2) tools to give useful feedback to both their peers and their department. It aims to ensure students choose combinations of courses that they will enjoy, that are academically coherent and that will not restrict them in course choice in later years.

2 Implementation

As a tool aimed at students, it was considered essential to keep the development of PATH within the student body. Its implementation was led by two fourth year student members of the School of Mathematics, who worked with their peers and tutors in the School of Mathematics to identify the problems PATH might solve and find suitable solutions for them. The project received joint funding from a University Innovation Initiative Grant and Information Services, whilst the Edinburgh University Students Association (EUSA) provided support for web-hosting.

2.1 Maclaurin

Whilst development officially began in June 2012, focus-group workshops had already been run much earlier in the year to collect student reviews and descriptions of courses. In July 2012, we released the first version of PATH, codenamed "Maclaurin" (accessible at path.eusa.ed.ac.uk).

The site was designed to be a course directory: displaying various relevant information about the course with a focus on aiding course choice. Rather than showing tables of data, the information has been curated and re-organised to more accurately suit the needs of students when choosing their courses. Related information is grouped in relevant tabs to keep categories such as course requirements together.

Fig 2.1.1: Two courses pages on PATH, showing the "Overview" and "Description" tabs. PATH also obtained additional information from the School of Mathematics and the student body. Tutors are invited to note what subject areas their course comes under and provide a more personal description of the content. A new database of staff contact details and room numbers helps students who have further questions to identify who they should contact and how.

The screen interface and navigation design was an important consideration. To enable students to compare courses, and reduce the number of windows required to use the service, users are given the opportunity to keep a collection of "my courses" which are then easily accessible from any webpage on PATH. This provides a fast and personalised navigation system and reduces the number of windows the user needs open whilst navigating the website.
2.2 Student feedback

We ask students for three pieces of input. The most granular is whether they would recommend the course to others. This open-ended 'boolean' question is left open to students’ interpretations and claims to do nothing more than provide a quick indication of how popular a course is.

For more detailed feedback, students are invited to provide anonymous course reviews. These reviews are moderated entirely by nominated class representatives and those that are approved then appear online and are public for the world to see. Negative reviews are accepted, so long as they are critically constructive. In the event that a review is rejected, the moderator is required to state why to enable the student to modify the framing and/or terminology used in their feedback to make it more useful. We hoped students would be more honest in their reviews knowing that their peers would be moderating them (as opposed to departmental staff), and this suited the project's 'student-led' approach very well. All reviews, public or not, are available for academic staff to see. It was noted by Newton (2000) that academic staff are the "makers and shapers of policy" and that it is important for them to see feedback directly, rather than a mediated or possibly 'sanitised' version.

Students have the option to write their own description of the course, only one of which appears online for each course. These descriptions aim to provide prospective students with a more suitable introduction to the course content, alongside the standard information from DRPS and the tutor's view.

In reviews and descriptions, students have the ability to "tag" other courses, allowing them to highlight links across the department, and associate the course content with that of other modules. This is of particular merit in the student-authored descriptions, as students can relate to topics in previously taken courses to better describe new content.

Student reviews and descriptions are aimed not only to help guide the School's policy makers, but to help students isolate from the large selection of courses those that they are most likely to be interested in, as it has been seen previously that students who select courses based on interest are more likely to be satisfied than those selected on other criteria (Howorth, 2002).

2.3 Future Courses

In an effort to highlight the different routes through a degree programme, we added a "future courses" tab to each course page. This shows courses in later years that the selected course is a pre-requisite for, which whilst not fully highlighting if the student has met the requirements to take it does give an indication of the importance of the course at a higher level. We also gave tutors the ability to add "follow on courses" to link to other courses with similar content - highlighting courses that, though not formally linked, may appeal to the same students.

The subject areas that courses are tagged in are also used in the main course listings, so students can select subject areas they are interested in and restrict the display to courses that fall into those fields.

2.4 Administration

PATH is powered by an administration system designed to be customisable to cope with future scenarios, but easy to maintain. The service gets course information from periodic Business Objects XI (BOXI) reports, which when uploaded update all course information. All other information the service uses is maintained through this system by administrative staff in the School of Mathematics.

3 Results

3.1 Students

The response from students has been overwhelmingly positive. In October 2012, a survey sent to all student users of the service received 67 responses, on average rating PATH 8.58 out of 10. More of the results of the survey are shown and quoted below.

<table>
<thead>
<tr>
<th>Rated PATH overall</th>
<th>8.58/10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rated student reviews</td>
<td>7.55/10</td>
</tr>
</tbody>
</table>
Table 3.1: Results from a survey sent to all PATH users.
As of Saturday 13 April 2013, a total of 675 votes had been made as to whether students would recommend a course or not; a number that is steadily increasing as students complete their courses at the end of the academic year. Of those votes, 515 (76%) are notes that a student would recommend the course in question, and 160 (24%) are votes against.

"It was easy to use and made picking courses a lot easier! The 'future courses' tab was the most useful in making the decision of what courses to take."

Surveyed student
At the same point in time, a total of 237 reviews had been submitted of which 219 (92%) were approved. We were extremely proud of the mature approach students took to writing reviews, as even 'negative' reviews were written in a reasonable manner often accompanied with suggestions to improve the course. Students surveyed said that these reviews have not only helped them inform course decisions but have also created a more positive environment for providing feedback.

"The fact that Path has public reviews has definitely encouraged me to write course reviews myself."

Surveyed student
Students strongly appreciate knowing that their feedback has been 'taken on-board', and that encouraging public course reviews provides a sign of respect from the School. We also note that students are likely to spend more time writing proper feedback if they know that it will be used by others, rather than just disappearing into a 'black box'.

3.2 Personal Tutors
Each student in the University of Edinburgh is now assigned a Personal Tutor (formerly Director of Studies) who provides academic guidance and support throughout their degree and, at the start of each academic year, students are required to see their Tutors to decide what courses they wish to take.

Personal Tutors have found PATH a useful resource for finding information on courses and checking with students that they are selecting suitable courses; in particular they have praised the simple course listings.

"Path is a pleasure to use! It has not just helped me as a personal tutor (it has!) but I rely on it more and more in order to answer questions from the College Visiting Students office."
José Figueroa-O’Farrill, School of Mathematics

"I think Path is an excellent resource. Just being able to see an overview of how our courses fit together is particularly useful when talking to tutees about their course choices and so much easier than wading through DRPS. The fact that it is also very easy to find prerequisites - and what a particular course is a prerequisite for - is a bonus."
Lois Rollings, School of Mathematics

"I've found [PATH] enormously useful. One way in which I've found it useful is as a new member of staff. The front page gives a completely clear overview of what maths courses there are. Arriving at a new place, there's a lot to absorb about how the programme is structured, and DRPS isn't well-suited to learning this. I have consulted Path dozens of times..."
for that reason alone."

_Thomas Leinster, School of Mathematics_

3.3 Quality Assurance and Enhancement (QAE)

The School of Mathematics has integrated PATH into their Quality Assurance and Enhancement processes and encourages students to use the site to make public reviews of their courses. The service has been linked into the University's Virtual Learning Environment (VLE), where every course page now includes a link to its corresponding course page on PATH.

4 Future

4.1 Whittaker

Whilst Maclaurin provides an excellent system for students, it does still exist as a directory of information, a lot of which is irrelevant to certain students. Those students entering fourth year, for example, are not interested in courses that are available only to first years. Furthermore, Maclaurin does little to clarify the relationships between courses across years: fig 4.1 shows the prerequisites between just some of the courses in the School of Mathematics; the amount of information to convey has already become apparent.

An experimental web application was developed, named Whittaker, which attempted to provide a more complete picture of a student's degree rather than just showing a collection of independent courses. Students were asked which degree programme they were on, which courses they had previously taken and were told which courses would be available to them in future years. However, this was purely a 'proof-of-concept' and constraints at the time meant it was not possible to implement Whittaker within the final service.

Whittaker makes strong use of colour-coding to quickly distinguish between courses that are or are not available, or that have already been selected by the student. It is automatically populated with courses mandatory to each student's degree programme, which itself can be viewed within the application highlighting if the current course selection meets the programme requirements. Notifications are used to highlight when a course choice makes courses available or unavailable in later years, or if the student is now no longer satisfying their degree programme requirements. Within this system we also embedded all the functionality of Maclaurin: students can select a course for a brief overview and expand this window to get all the information on that course.
Fig 4.2: Whittaker, an experimental web application aimed to provide a more complete solution.

4.2 Expansions to other schools
PATH was simplified in its design to initially cater only for the School of Mathematics to eliminate various elements of complexity. Whilst expanding the site to include other schools does present some challenges, particularly when considering combined degree programmes, building a flexible platform to cope with these would be of major benefit to students across the University. One of the main complaints surveyed students had of the service was that it did not provide information on all of their courses.

4.3 QAE oriented
PATH was always centred around course selection, and course reviews were added for the benefits in the selection process. However, we have seen the great QA and enhancement benefits PATH has provided for the School of Mathematics and think it would be universally beneficial to incorporate stronger QAE functionality. Student recommendations of courses have proved useful as a quick form of feedback, but due to the vague nature of the question do not provide much information from a QAE point of view, except highlighting where students are generally happy or unhappy with a course. We propose splitting this question into a rating of the teaching of the course and of the course content. In addition to the current open-ended text field, more specific questions could be asked of students and, overall, the student feedback process could be centralised via PATH. We would also like to encourage more communication from University staff regarding changes to courses, particularly those made following feedback made by students. Integrating this into the service would allow students to then see the direct impact their course feedback is making.

5 Conclusion
Making course feedback public is certainly a bold move, and could be considered a risk, but we have seen through this project that it can help to empower students to shape their department, through a ‘partnership’ approach which has helped inform future enhancements. In this paper, we outlined the problems faced by students in the School of Mathematics when trying to select courses using resources previously available to them. We also saw the problems the School had regarding the collation and effective use of student course feedback.

We introduced PATH, an online tool that has helped students choose their courses, and improve the quantity and quality of student feedback on their courses. We have seen how
well PATH has been received by students and staff alike, and also glimpsed at what we might achieve in the future. Students care about the courses they take at university, and providing them with a suitable platform for open and public feedback benefits everyone involved. Mishra (2007) says that students are the "key stakeholders" of a university, and we believe it is important that their voice and opinions are heard.

References
Newton, J (2000) Feeding the Beast or Improving Quality?: academics' perceptions of quality assurance and quality monitoring, Quality in Higher Education, vol 6, no 2, pp 153-163
Empowering students through mentoring, learning and reflective portfolios

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Abstract:
This paper describes some of the issues raised by a higher education institution (HEI) in implementing systems to empower students in programmes developed in partnership with industry. As organizations focus on economic indicators and return on investment their approaches to learning and development opportunities must be effective and efficient. The resulting award or qualification can be developed to structure the acquisition of knowledge skills and competence in a blended approach valuing the workplace itself as a centre for learning. The challenge for the higher education provider is in equipping students with the supports and skills necessary to identify, translate and document their work place learning for academic accreditation. This case study looks at such an engagement and how mentoring, learning and reflective portfolios can empower students/workers to develop skills in documenting their learning relevant to workplace competencies identified in partnership with the work organization.

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Keywords: Engagement, empowerment, mentoring, portfolios, reflection

Introduction
In the past number of years there have been changes in approach at a national and international level in how programs are devised, delivered and supported. There has been a significant shift in thinking on what learning is valued, coupled with where and how learning can be achieved. There is also an increased emphasis on professionalism within the enterprise domain and the need for on-going support for the acquisition of skills and competencies to ensure growth and sustainability within a competitive global marketplace. This can be achieved by working in a close partnership with a higher education institution (HEI) to develop customized learning pathways that are sensitive both to the learner profile and existing skill set and are informed by the unfolding organizational needs.

In recent years there has been a ‘paradigm shift in higher education, one from a focus on teaching, to a focus on learning.’ (Barr & Tagg 1995). The constant tension between the pressure by academia to maintain the way they would have always done things and the newer demands of students to have an understanding of the application of their learning rather than knowledge alone. There is increasingly a demand for student centered programmes which focus on developing the learners rather than solely delivering education and assessment.

The national strategy for Higher Education to 2030 published by the Department of Education and Skills in 2011 identified ‘higher education as a mechanism to make Ireland a country recognized for innovation, competitive enterprise and continued academic excellence.’ The national strategy for Higher Education outlined several areas which would require change and attention including:

Engagement with the community
Changes in teaching and learning
Assessment
Quality assurance systems

(Group, 2011).
In terms of the National strategy report there is increased focus on educational institutions and how they need to change in terms of ‘autonomy, collaboration, to become outward facing and fully accountable for quality and efficiency outcomes.’ (Group, 2011)

This case study relates to how Cork Institute of Technology (CIT) has been responding to these challenges. CIT is a publicly funded higher education provider. It is the largest provider of the network of thirteen Institutes of Technology. The Institute makes its own awards at undergraduate and taught Masters level, under Delegated Authority from Quality and Qualifications Ireland (QQI).

CIT currently has in the region of 15,000 registered students; approximately 7,000 are registered full-time on third-level programmes, and the remaining part-time students. CIT’s education, research and training provision spans a wide variety of disciplines, from business and humanities through engineering and science to music, drama, art & design and nautical studies.

2 Student centered learning and education
There is increased pressure being placed on HEIs to have the needs of students as a central concern with regard to education and training. This has implications in terms of how programmes are developed, delivered and assessed.

Traditionally, HEIs developed programmes without significant consultation with industry. It was believed by academia that they were the ‘experts’ in the particular field so could decipher the essential elements required to ensure an individual’s competence in an area.

This approach to the development of programmes has dramatically changed and employer groups and organisation’s are increasingly consulted and involved in the process from the initial stages. This is done to ensure their relevance to the future skill requirements of industry and that qualifications are relevant and current.

In terms of where programmes are delivered there has also been a paradigm shift in approach where workplaces are becoming centres of learning and that education activities which traditionally were only delivered in education institutions are now delivered in the workplace or in a blended approach between workplace and higher education institution.

2.1 Student empowerment and motivation
In order for students to assume ownership of and responsibility for their learning in an academic programme they need to be motivated and empowered to do so. In terms of motivating students who are employees of a company it is important that the reason for part taking in further education is a decision of the employee as opposed to being pressured by the employer. Brophy (2010) stated that ‘students will not respond well to motivational attempts if they are fearful, resentful, or otherwise focused on negative emotions’.

Another aspect of motivation is that students inherently learn better if they are part of a ‘learning community’.

A preferred scenario is the identification by the workplaces of the skill deficiencies of their workforce and putting in place programmes to address these and in doing so use the workplace as a learning environment.

It is the recognition that a workplace is an area where extensive and significant learning can and does take place. It ensures that theoretical learning is fully applied and referred to valid workplace situations making the learning more applicable and relevant. Therefore the area of work-based learning becomes relevant and its application becomes a true reality to address the current and future skill requirements of Irish society.

The workplace is being predominantly seen as a valid learning forum with the emphasis on lifelong, life wide learning. Informal and non-formal learning are primarily linked to workplace learning, in the sense that it is through learning by doing that the knowledge, skill and competence is acquired. As defined by Garnett (1997) “work-based learning is learning at higher education level derived from undertaking paid or unpaid work” (Gray 7). Gray also outlined that work-based learning is a “mechanism for learning” (Gray 7). The emphasis of
work based learning is that it contributes in some way to the knowledge of the learner. As Gray states work-based learning is learning "at work or for work" (Gray 4).

Learning portfolio
In terms of empowering students, the careful selection of assessment methods can empower the student to more effective demonstrate their learning. The learning portfolio is such a tool.

Annis and Jones (1995) defined student portfolios as 'a multidimensional, documented collection of … a … student's work put together in an organised way and including a reflective discussion of the materials contained in the portfolio'. (Zubizarreta 15)

Zubizarreta defined the learning portfolio as 'a flexible, evidence-based tool that engages students in a process of continuous reflection and collaborative analysis of learning. As written text, electronic display, or other creative project, the portfolio captures the scope, richness, and relevance of students' learning. The portfolio focuses on purposefully and collaboratively selected reflections and evidence for both improvement and assessment of students' learning' (Zubizarreta 16).

The learning portfolio is extremely supportive of the development of employees’ skills to identify and document their learning relative to particular workplace competencies.

Reflective portfolio
Reflective portfolios are useful within all formal programmes but especially those developed in partnership with the workplace or for programmes such as those with mature students. The reason for this is that the learner is able to put their learning into context and determine whether it truly has relevance outside of academia. It also develops their abilities to determine how their newly acquired learning affects their current work practice. It also empowers them in terms of identifying areas of business processes which should be changed to support best practice.

Mentoring
Mentoring is defined by Dunn et al as;

"The process based on a partnership between two individuals within a context where the mentor shares his or her professional and personal expertise with another for mutual benefit. Mentoring relationships are characterised by a degree of uniqueness, not only across disciplines but also on a case-by-case basis. "(Dunn, Morgan and O'Reilly 96)

Mentor support and guidance is paramount in the completion of a learning portfolio. Support and encouragement is required by the learner to identify the relevant learning which they should input into their portfolio. In the case of an individual with informal and non-formal learning, who has not been involved in education and training a mentor will be a vital resource which they will require.

The initial task for a mentor in working with individuals with informal and non-formal learning will be to help them realise the level of learning that they have accomplished.

In the experience of the author, learners who have had limited experience of higher education seldom have an appreciation of the extent of their learning. The primary reason for this is that their learning is seen by them as 'just what they do' on a day to day basis. In relation to formal recognition of their learning, they do not contextualise their informal and non-formal learning in this manner. Therefore, difficulty can arise in establishing linkages between what they have acquired informally and what is required formally by education institutions and awarding bodies.

The mentor should possess knowledge of what is required in order for them to be useful to a learner. It is necessary that in the case of a portfolio, the mentor is knowledgeable as to the content of a portfolio and what the learner is required to input. Ideally, the mentor should be someone who is not a friend or close colleague of the learner. In the experience of the author the most effective mentors for work-based learning programmes are supervisors or
managers of the learner. They are readily aware of the tasks performed by the learner and the informal and non-formal learning they have acquired. It is not necessary that a mentor be available in a workplace. An academic mentor can also be assigned to assist a learner in the compilation of their learning portfolio. The academic mentor will not possess the same level of insight into the learning of a person with informal and non-formal learning. This should not inhibit the learner, as a portfolio is essentially a representation of their learning and not that of the mentors.

There are an increasing number of workplaces who are realising the benefit of having trained mentors on hand to assist those with informal and non-formal learning to access education and training.

3 Learning Environment Changes
As a result of the increased involvement by industry at all stages of academic programmes from development through to assessment the traditional relationship between the student and the HEI has now evolved into a tri-partite arrangement with the workplace also featuring strongly in the dynamic.

External to this partnership are macro forces which drive the local, regional and national learning partnership interaction priorities.

Fig 3.1 Learning Partnership Interactions (REAP 2012)

4 Case studies of student empowerment
The following are two case studies which demonstrate an approach to empowering students in terms of
Co-creators of knowledge
To become reflective practitioners
In part responsible for their own learning journey
Developing relevant, reusable, transferable skills
Linking education with the needs of the workplace. They are more closely linked

4.1 Case Study 1 Print Media Industry
In the first engagement the company was from the print media industry. They had offices located nationally with the responsibility for 14 titles. Their portfolio was quite diverse in
terms of the business function, some had been developed by themselves and others were acquired by the group. As the group was expanding they identified a need for the up-skilling of their employees in the sales and marketing division. Traditionally, it was an area which attracted people with an interest in sales but not necessarily the knowledge and skills required to become effective sales people. The employer organisation realized that having a knowledgeable sales force could be a source of competitive advantage for them in an industry which was extremely competitive in terms of securing advertising income. The company had become a training provider under the national authority but they were not an educational provider so they required an external partner to deliver the educational aspect of the course. 

Programme structure
The course was a one year add on degree in sales at a level seven on the national framework of qualifications (NFQ) and level six on the European qualification framework (EQF). In order to be accepted onto the course the applicant was required to have a level six qualification or equivalent learning. The programme consisted of 60 credits of learning, incorporating a variety of modules focused on the theoretical underpinnings of sales and marketing. There was a professional development in the workplace module which was worth 10 credits (ECTS) of learning. This module was developed in conjunction with the workplace in terms of identifying the workplace competencies which they needed employees to possess to be effective within their role. The skills were generic in terms of their relevance to any sales situation and not specific to the processes of the company. The workplace competencies became the indicative content, which informed the learning outcomes of the module. The students were full time employees of the company and they were released on a monthly basis to attend lecture and network/collaborate with other employees. The content of the professional development module focused on developing reflective learners who could identify their own learning. The intention of the module was that the employees could become better at their roles or identify gaps in their learning which needed to be rectified. The module was delivered by a module lecturer in CIT who focused on the skills of documenting and evidencing learning, reflective practice and the ability to identify gaps in their learning and take steps to rectify that position. Each employee also had a mentor assigned to them within their own workplaces whose role was to support and guide the learner. The mentor was normally the direct line manager of the employee so there was familiarity with the person before the learning engagement. The mentor had the responsibility of assisting the learner in identifying their relevant learning from the workplace. If the employee identified that they did not possess all of the 10 workplace competencies then the mentor had the responsibility of ensuring the employee got the opportunity to gain that learning. The mentors were trained by the CIT lecturer in mentoring, the role of mentors and supports which could be used by them to enhance the interaction with the mentee. The mentors within the work environment were able to refer back to the CIT module lecturer/mentor if necessary so they were continuously supported within their role. The methods used to capture the learning were learning and reflective portfolios. The assessment methods used had to be flexible and appropriate in facilitating an employee to document their learning and support it with suitable evidence. The learning portfolio also allowed for the individual nuances as no two employees had the same learning. The reflective portfolio also supported the individual learner and provided flexibility for the employee to document their experience in a manner which suited them. It also provided an opportunity for them to identify how the other modules of the course would inform their practice going forward for the betterment of the individual, their role and the organization. Empowerment
In terms of empowering students to engage with education and training it was possible for employees to gain entry using their prior work based learning if they didn't have the prerequisite formal qualification. Prior to this engagement some of the employees hadn't
completed any higher education qualifications. The programme increased their confidence in their own abilities in terms of its equivalence with academic qualification standards. As the reflective portfolios were retained by CIT and not disclosed to the employer the employees were provided with a confidential space to be critical of the workplace and make recommendations which they may otherwise be fearful of mentioning. The feedback received from management and employees was extremely positive in terms of using their learning. Management reflected that employees became more engaged in sales efforts, more proactive in terms of business development, understanding motivations of clients and developing effective strategies to talk to people in a way which they were understood and received well. Management saw that the course was providing a very real competitive advantage to the business group. Overall for the company group there was evidence of improvements in motivation and levels of professionalism as employees went through the programme. They were more organized and more effective in ways of working both with clients, self-motivation and inspiring colleagues around them. Employees’ abilities to deal with clients at all levels improved especially with internal clients. The employees also found that opportunities arose within the company in terms of promotion or greater responsibility. In the case of other employees who completed the course, the identification and documenting of their skills in the area gave them greater confidence in their abilities and to engage further with higher education.

4.2 Case Study 2 Irish Naval Service

The second engagement was with the Irish Naval service (INS) which was different from the first engagement in a number of ways. The engagement for this programme emerged from successful interactions between CIT and the Irish Naval Service for more than 30 years. There was considerable investment made by the employer in terms of training of a mentor network which consisted of mentors, assessors and mentees. This ensured that all were aware of their responsibilities under the programme. In terms of development of the programme the employer specified their content requirements and worked with the academic staff in terms of identifying the associated relevant workplace competencies. In this engagement the involvement of the workplace was more extensive in terms of the number of modules involved and also the responsibilities assumed by the workplace. The programme in question was already developed prior to the involvement of the Irish Naval service. In order to meet their learning requirements, a separate stream was developed in the final year of the programme for the INS personnel. Due to the nature of the business which the Naval service are in, employees were unable to be absent from their appointed ships for extended periods of time. Therefore the modules were completed in the workplace by the employees with support from a designated mentor and CIT lecturer.

Assessment

The INS was also responsible for the assessment of the material produced as it related to sensitive material related to national security and other naval specific material. The assessments and naval assessors were subject to CIT’s qualification and quality assurance standards and were processed with all other student results at the end of semester examinations. In terms of developing understanding of the structure of the programme by the employees there were workshops on portfolio development and critical reflection to ensure they understood the appropriate processes and boundaries for the successful completion of the Work Based Learning (WBL) elements of the course.

Significant learning arising from the engagement

In terms of the programme and the approach taken in terms of a partnership approach and integrating the requirements of the organisation into the programme content it was key to the success of the programme in the opinion of management. In relation to the more traditional approach to training and development of the Navy they felt that they are very skills focused and no value was put on the academic value of the learning acquired within the workplace. In terms of programme design and development academic
staff and CIT staff were to open to understand the variances between the cultures of the two organisations. It was evident by the Navy that academic staff placed a worth on the training which their trainees engaged in. In terms of the approach adopted by CIT in their programme development they integrated the needs of the Navy into the programme and module learning outcomes. The same quality assurance procedures were adopted for the programme so it was seen as on par with any other academic module/ programme in the institute, nationally or internationally.

The programme also influenced the internal development of training within the Navy. There was a change of approach in how their training was structured in that it was pegged against the levels 6 - 9 on the national framework of qualifications. The fact that all training is placed on the framework means that it can be easily referenced onto the European Qualification framework or any other national framework. This facilitates the EU agenda of the mobility and transfer of learning and learners across boundaries.

Conclusions
5.1 Why these engagements worked
The reasons why these engagements were so successful were as a result of several factors. The employer organizations had decided what they wanted their workplaces to be separate to this engagement. In the case of the Irish Naval Service they had developed their own vision to become ‘the smartest, most innovative and efficient Naval service in the world by 2016’. They aspire to being a learning and knowledge institution. The partnership between Irish Naval service and Cork Institute of Technology is seen as one of the core strategic pillars of the naval service ‘transformation’ agenda. In the case of the Irish media company they had decided that they would develop a world class sales force which would be their competitive advantage in a very competitive market place.

Mentoring is seen as pivotal to the success of the programme. Both workplaces implemented mentor networks to support the employees completing the course. In the case of both workplaces, the challenge was that they already had workplace mentoring systems which are not fit for purpose for learning and development purposes. In the Navy the military style mentoring system wasn’t conducive to encouraging critical reflection and identification of gaps in learning. They showed their commitment to the programme by investing in continuous training and development for their mentors.

One of the major contributors to the success of these programmes was the assessment tools used to capture the learning of the employees. Traditional assessment methods were realized as not being appropriate in facilitating the development of the employees and their learning. They were all provided with a template to use for both the learning and reflective portfolios so the employees did not have to be concerned with the structure.

All parties were committed to the engagement. The employer organizations, the employees and CIT made significant investment in terms of time, financial but mentally committed to the success of the programme.

5.2 Empowering the students /employees
The structure of the programme enhanced the students’ ability to become reflective practitioners. These skills stemmed beyond academic achievements and into their daily working lives.

An outcome of this approach was the student felt empowered to ask ‘why’ as opposed to accepting the status quo. This was especially relevant within the naval service as they were used to just following orders and never reflecting on whether it was best practice. This approach also encouraged deep rather than surface learning.

The content of the course was directly influenced by workplace competencies so it had benefits for them beyond academic credit. It provided them with opportunities to develop their occupational potential.

The programmes increased self-confidence in their abilities as sales people or young naval officers.

Feedback was received from management following the engagements that they saw improvements in other skills outside of the work place competencies. These improvements
related to areas such as their analytical, writing and other generic skills which they got through the programme.

5.3 Enablers and challenges of the engagements

Though the case studies demonstrate the different workplaces with diverse workplace cultures and purpose there were several commonalities which enabled these engagements. These included but aren't limited to the following:

Employers were very engaged with the process and in the development of a programme which met the workplaces and employees short term and long term goals.

There was considerable flexibility in the programmes in terms of assessment and student support whilst maintaining academic standards.

In terms of programme content, consideration was given to the needs of employees to develop current and future skills. There was a focus on the academic and professional needs of employees. There was also encouragement through the programme for learners to take ownership for demonstrating their learning and knowledge in an area and identifying where they have potential for the future.

The development of a mentor network within the workplace was a significant enabler as the workplace became a centre for learning.

There was a willingness to share and learn within the partnership which was structured in a tri-partite arrangement.

The challenges of the engagement included the following:

The diversity in the organisation cultures posed challenges in terms of how each organisation approached the collaboration.

Resistance to change from CIT course development personnel in terms of syllabus development, delivery and assessment.

In the instance of the Irish Naval Service engagement the assessment material had to be assessed by military personnel due to the sensitive nature of the content. This posed new challenges to the higher education institution as they traditionally would assess all material.

Mentoring systems for educational purposes were challenging as an informal system already existed. Mentors found it difficult to separate their roles as occupational and academic mentors.

Bibliography


Peer and Community Personal Development Planning

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ABSTRACT: This paper provides an overview of a Peer and Community Personal Development Planning (PC PDP) programme which has been developed and implemented across four departments in the Faculties of Engineering and Science at the University of Strathclyde. A key aspect of the programme is that it has been developed by a team of students and academic staff with integrated support from Peer Mentors (senior students), Learning Technology Enhancement (LTE), the Careers Service and Industry partners. Each of the stakeholders and activities are brought together through a ‘tight-loose’ model. We will describe the survey of stakeholders and subsequent development of the PC PDP programme, the implementation which followed and initial evaluation of the PC PDP programme. We will conclude with the planned enhancement of PC PDP which will take place in the next phase of this project.

1 Introduction
In their comprehensive review, Gough et al (2003) recognised that Personal Development Planning (PDP) is a key contributing factor towards a positive student experience. As outlined in the QAA audit (2011), effective PDP is critical for enhancing employability and successful transition through University and beyond. Over several decades the University of Strathclyde has introduced a number of PDP programmes, in a variety of formats. The most recent approach, a model of PC PDP was first developed and implemented in partnership with the student community in academic session 2011/12. The development and implementation of PC PDP was in response to the institutional ‘Model for Personal Development Advising’ which was approved by Senate and adopted across the institution in 2010. Two of the authors were involved in the development of this framework.

![Figure 1. The vision of PC PDP](Image)

The vision of PC PDP, illustrated in Figure 1, places the student at the centre of their Personal Development (PD) in partnership with peers, industrial partners, alumni, academic and careers advisers, for sustainable PDP on or off campus, face-to-face and/or on-line. The ultimate aim of PC PDP is to provide PD support for students from a variety of backgrounds including international, mature, distance and flexible learners to enhance the student experience and enhance employability.
The University of Strathclyde Educational Excellence Fund (EEF) has supported the development and implementation of PC PDP through two phases and has recently agreed to fund a third phase. The student body has played a lead role throughout this development. In academic year 2010/11, the Faculty of Engineering were awarded funding (£27,500) to engage current students to co-develop a PC PDP programme with academic staff. This programme was introduced as a pilot to first year students in three departments within the Faculty of Engineering in September 2011. Further funding was awarded (£32,000) in session 2011/12, primarily to the Faculties of Science and Engineering with the aim of sharing outcomes across the wider University. This second phase was a further collaboration between staff and students. Specifically, it allowed the evaluation of the initial implementation of PC PDP, i.e. the 2010/11 version.

Findings from this evaluation demonstrate a wide spectrum of variation in engagement amongst the various stakeholders i.e. students, academics, peers etc. from fully engaged and committed at one end to a few examples of non-participation at the other end. These patterns of engagement in PC PDP align with the findings of Quinton and Smallbone (2008) and are common challenges in PDP.

This evaluation supported the creation of a refined version utilised in both Engineering and Science in academic year 2011/12. A third tranche of funding (£25,000) will support further work in 2013/14. Ultimately, PC PDP will be rolled out across all four Faculties in the institution by 2014.

2. Methodology
The PC PDP project has been a co-production between staff and students with the overarching goal of ensuring PC PDP has been “developed by students for students”.

<table>
<thead>
<tr>
<th></th>
<th>2011</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of student Interns</td>
<td>6 summer interns (2 from each of three engineering departments)</td>
<td>4 summer interns (1 from each of four departments across engineering and science faculties)</td>
</tr>
<tr>
<td>Objectives</td>
<td>Initial development of PC PDP</td>
<td>Evaluation of initial PC PDP approach</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Development of on-line tools and peer mentoring approaches</td>
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<tr>
<td>Workplan</td>
<td>Typical Design Process Model</td>
<td>Workpackages detailed in figure 2</td>
</tr>
<tr>
<td>Resulting Implementation</td>
<td>Implemented in first year of 3 engineering departments</td>
<td>Implemented in 1st and 2nd year in four departments science and engineering</td>
</tr>
</tbody>
</table>

Table 1. Overall project approach
As illustrated in Table 1 overleaf the project to develop PC PDP commenced in summer of 2011, the output of which was implemented in session 2011/12. This initial implementation allowed evaluation which has shaped further development in 2012. During both years 2011 and 2012 the project has run as a summer internship programme supervised by staff members. Each year students from each of the departments where implementation is planned have been employed. Not only does this ensure the output meets the specification of the departments involved but also provides a Personal Development opportunity for these students.

In the first year of the project, 2011, the development approach focussed largely on a generic "Design Process Model" such as Pugh (1991), Ulrich and Eppinger (2007) or Pahl and Beitz (1988). The main phases being: investigation - during this phase an investigation of existing practices, processes and products for Personal Development was undertaken. A thorough understanding of the “user group” was also obtained using an extensive survey of existing students, university staff involved in the PD process including academic staff and careers advisers, alumni and industry contacts.
**specification** - requirements for PC PDP were captured and collated including the information gathered during the investigation stage.

**concept generation and evaluation** - a number of potential solutions were conceptualised and evaluated against criteria from the specification.

**development** - the best concept a "tight-loose model" was developed, a description of this is provided in section 3.

**deliver** - implementation of the solution developed took place in session 2011/12.

Following implementation in three engineering departments in session 2011/2012 specifically, Design Manufacture and Engineering Management (DMEM), Mechanical and Aeronautical Engineering (MAE) and Naval and Marine Engineering (NAME) an evaluation was carried out which highlighted that emphasis should be placed on developing on-line and peer support aspects. This framed the approach undertaken in summer of 2012 which is illustrated in Figure 2.

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**Workpackage 1.**

**Evaluation of Existing PC PDP Implementation:** A thorough evaluation of the initial implementation (session 2011/12) of PC PDP in DMEM, MAE and NAME was carried out using a combination of structured interviews and focus groups. A team of 3 part-time student interns, one from each of the departments involved carried out the evaluation. The main output from this workpackage was a clear understanding of the benefits as perceived by the students of the current implementation of PC PDP together with identification of potential improvements and developments.

**Workpackage 2.**

**Investigation and Development of Peer Support:** The main aim of this workpackage was to identify, evaluate and build upon existing good practice in Peer Support across the faculties of Engineering and Science. A trained ethnographer, worked proactively with the students involved in peer support activities to provide a vital unbiased critical review of existing strategies from a student's PD perspective.

**Workpackage 3.**

**Investigation and Development of On-line Support:** A thorough review of appropriate technologies to support on-line recording, sharing and feedback within students' PDP was carried out. These were evaluated against key requirements identified from the 2011 PC PDP project together with workpackages 1 and 2 above. An on-line version of PC-PDP was developed in conjunction with LTE at the University of Strathclyde which is described in section 3 below.

**Workpackage 4.**
Implementation: with the help of the summer interns the on-line version of PC PDP was implemented in four departments across two faculties in session 2012/13.

3. Development and Overview of PC PDP
3.1 Initial Development 2011

The first year of the project lead to the development of a "tight-loose" framework of PD Programme Activities which engage each of the stakeholders. This framework is captured in Figure 3 overleaf.

Figure 3 illustrates the core activities that are essential constituents of the PD Programme; additional activities may take place, depending on student and discipline requirements. Essentially, this is a 'tight-loose' model where the 'tight' model includes all of the core activities of Figure 3, while the 'loose' model can be adapted to suit other disciplines and requirements by adding further activities. Each student has a peer mentor from senior years (years 3 & 4) of their degree to assist with all aspects of the PD Programme and beyond. As illustrated in Figure 3 the student is encouraged to become more self-sufficient as the PD Programme advances to senior years, thereby encouraging continued PDP beyond University.
Key detailed documentation was prepared to inform and assist each of the stakeholders specifically:
Student PD Handbook (containing Action and Reflection Documentation)
Peer Mentor - about the role
PD programme champion guide
Personal Development Advisor (PDA) handbook

In the initial phase all material was paper based.

3.2 Further Development 2012
The main output and development in phase 2 is a comprehensive PDP resource. This is available on-line through the university Virtual Learning Environment "Myplace" which is a moodle based platform. Figure 4, overleaf, shows the entry page on Myplace.

Figure 4. PDP entry page on Myplace
The resource consists of:

Student and staff handbook - a comprehensive and concise overview of the entire PD process from first year entry to graduation. A screenshot of the handbook is provided in Figure 5.

Downloadable action plan and action plan review forms - all forms are on-line Examples of completed forms are provided. This is particularly helpful to students who are new to the process and are often unsure what is expected.

Skills development centre - links to numerous resources that help students to recognise and develop skills, including, 'Skills Employers Want', 'Get Involved', 'Opportunities', CV guidance and self assessment tools, Maths Skills and Support Service, Careers Service, clubs societies and professional bodies.

Alumni Profiles - examples of alumni career profiles and endorsements of PDP aimed at inspiring current students. An example is provided in Figure 6.

Alumni/Industry Forum - this feature provides the facility to run on-line forums between current students and industry contacts (including alumni). Students can ask questions to
representatives in companies they aspire to work for. Current students value the opportunity to converse with industry, particularly graduates from their course or university.

**Mahara e-portfolio** - allows students to build an electronic portfolio of their skills, experiences and work. Short video clips for training in the use of Mahara are provided.

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**Figure 5.** Screen shot of on-line Student Handbook

**Figure 6.** Alumni Profile Example

4 Implementation
4.1 Strategy and Planning
In 2010, the Senate at the University of Strathclyde created a short lived working group to review the evaluation of PDP which had been carried out by colleagues in Corporate Services. This survey of current practice across the institution clearly indicated that the four faculties operate independently and in different ways and that PDP was being delivered in some areas (Science, Business) but not others (Engineering, HaSS). A new framework for PDP was proposed by the working group to Senate and was adopted by the University in June 2010, indicating the commitment from senior management for PDP activity. A PDP 'champion' for the institution was also appointed to support the implementation of this framework.

4.2 First Phase of Development
The Faculty of Engineering, in recognition of the need to develop PDP in their Faculty, carried out the first EEF funded project in 2010/11 to introduce a student led PDP system. The project team successfully developed a new set of paper based PDP resources. The support from Professional Services (Careers Office, Learning Enhancement team) was crucial in this process. The Faculty rolled this system out to the first year cohort in three of their departments (DMEM, MAE and NAME) in September 2011. This was accompanied by peer support activities where senior students were assigned as mentors to small groups of first year students.

4.3 Second Phase of Development
The second cycle project was carried out by students from the Faculties of Engineering and Science. These students reviewed and refined the existing resources and converted them into a streamlined online package which can be accessed through the University's VLE, Myplace. The students again worked closely with Professional Services. This online material was then used to support PDP activity across the three Departments in Engineering and the Department of Pure and Applied Chemistry in the Faculty of Science. Peer mentoring also became firmly established in these departments. A third cycle project is currently underway and is discussed in more detail in the Further Work section.

4.4 Staff Support
In conjunction with the development work being carried out with students, training was also provided to support academic staff in the role of Personal development Advisers (PDAs). A 'Sharing Good Practice' event to raise the profile of PDP took place during the first phase of development. This included input from all four faculties and Professional Services. A presentation from the engineering students who had worked on the PC PDP project was very well received and clearly indicated that the creation of a PDP by students and for students was a crucial factor in the success of any PDP programme achieving buy in from students and staff.

A training event for academic staff was delivered during the second phase of development. PDAs had specifically identified that they required additional information and training to support students better in their PDP process. Colleagues from Professional Services outlined how they can support the work of PDAs in the Faculties.

4.5 PDP Network
All of the activity in the PDP area has raised the profile of PDP at Strathclyde and has led to the formation of the PDP Network, a team of key stakeholders working towards a coherent PDP process across the university. This Network meets regularly during the academic year to ensure PDP development continues.

5. Future Work
Further funding has been secured to build on the substantial work already carried out and aligns with a number of the institution's educational priorities, including student engagement and peer support. The ultimate aim is to encourage students to take responsibility for their own PD and develop their skills and learning in partnership with academic advisers, their peers and the wider community (i.e. industry, alumni, careers advisers, etc.). With the assistance of a part time Teaching Associate (TA), we plan to roll out the PC PDP programme across all four
Faculties in the institution and establish well developed student centred Personal Development Planning to enable successful transition experiences.

**References**


Can pay, should pay? Exploring paid and unpaid work opportunities from employer and student perspectives
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The Open University, UK
Christine Irving, Colin Smith and Sally Smith
Edinburgh Napier University, Scotland

ABSTRACT:
Within current discussions around student employability, considerable emphasis has been placed on gaining work experience, either through volunteering or via work placements and internships. There is growing evidence that such opportunities are valuable to students in relation to their academic performance and their employability. Yet there is also concern about an apparent 'new elitism', where only those who can afford to work for free can gain such experience. This paper explores the motivations, drivers and experience of students and employers engaged in placement activity, both paid and unpaid, to highlight the critical questions and practical challenges raised by the diversity of practice. It draws on insights from programmes currently operating in the Scottish HE sector to explore the relative benefits of promoting paid work placements as part of student employability interventions.

1 Introduction
Within current university-focused discussions around enhancing student employability, considerable emphasis has been placed on gaining work experience, either through volunteering or via work placements and internships (e.g. Wilson 2012, Milburn 2011). There is growing evidence that such opportunities are valuable to students in relation to their academic performance and their employability skills (e.g. Little & Harvey 2006, Driffield et al 2011). Indeed, the Wilson report recommends that "ideally, every full-time undergraduate should have the opportunity to experience a structured, university-approved undergraduate internship during their period of study" (Wilson 2012: 40). Yet there is also increased concern about an apparent 'new elitism', where only those who can afford to work for free can gain such work experience. Efforts to boost employability skills need to benefit 'the many' not just those who can afford to work for free. A key challenge faced by universities is how to support the development of such opportunities and increase their 'openness'. This paper draws on the experience of two programmes aimed at enhancing student employability in Scotland. It explores the views that students and employers have of the significance of internships and work placements, what drives them to participate in such opportunities, and their views on whether such opportunities should or could be paid.

2 Internships and Placements in Context
In the context of the economic downturn in the UK, there has been considerable concern about the rate of youth and graduate unemployment (Patton 2011, Gilleard 2011). Youth unemployment is, Gilleard notes, "endemic in the UK when we go into recession" (ibid: 7), in a difficult environment those in the graduate recruitment market will not make the same investment in recruiting and developing graduates. A second related concern from the perspective both of employers and higher education institutions has been the employability of students. There has been widespread recognition that a 'degree is not enough' and that work relevant skills and experience are crucial in a highly competitive job market (CBI & UUK 2009, Tomlinson 2008). Universities across the UK are engaging more directly with employers to offer greater opportunities for students to gain 'real world' experience as part of their studies through work placements, work-related projects and employer engagement activities.

2.1 University Support for Student Employability: The Scottish Context
Within the Scottish context, student employability has been a key priority, the focus of targeted funding and mainstream activity over many years. The impetus for creating further internship and work placement opportunities has come from individual institutional activity
but has also, crucially, been facilitated via the Scottish Funding Council's efforts to promote opportunities for students (SFC 2010) and via Scottish Government efforts to extend opportunities for graduates (e.g. Adopt an Intern and Talent Scotland programmes). Central to the Scottish HE and FE sectors' engagement over the past three years has been the Learning to Work 2 initiative supported by the Scottish Funding Council. This suite of programmes provided an opportunity to explore a range of approaches to promoting, facilitating and managing placements and the impact such experiences have for students, the broader university sector and employers. This study draws in particular on work from two of these initiatives, e-Placement Scotland and Third Sector Internships Scotland (TSIS).

2.2 Making Work Placements and Internships 'Work'
A particular focus of these Learning to Work initiatives has been an exploration of what makes work placements and internships 'work' for the broad range of stakeholders. Understanding what makes a placement opportunity meaningful and valuable has been a central focus of the investigative work conducted by both e-Placement Scotland and TSIS. Students tended to value work that offered them real responsibility and some ownership of a piece of work, rather than more diffuse 'work experience' of an administrative or support nature. Employers emphasised the need for support and guidance to ensure they were able to provide the requisite support to the student as well as the need for practical guidance around developing job descriptions and recruiting for posts. Throughout the programmes' initial development the theme of payment for work came across strongly from both students and employers. In the case of the TSIS initiative, for example, there emerged a strong sense from students that paid work would be of greater value on their CV than further voluntary work and that the payment element would enable them to take on work that they would not have been able to do if it had been unpaid. Employers, too, noted that they got something qualitatively different from a paid intern as opposed to a volunteer in terms of the level of responsibility and the degree of expectation that they could place on the students (Caddell 2012: 47).

These initial discussions about how to make placements and internships 'meaningful' focused attention on a range of themes related to the experience, but payment was one of the key central areas of discussion. This reflected a growing volume of popular and political discussion and campaigning on the potential exploitation of interns, many of whom are unpaid, and the perception that internships and work placements are elitist, with access to opportunities based on who you know rather than any meritocratic basis (see Caddell & McIwhan 2011). Such broader debates are worth briefly introducing here, to contextualise further the context within which the study was conducted.

2.3 Payment for Work: Legal and Ethical Concerns
Such issues have been a key element of recent political discussion on social mobility and employment. The Milburn Panel on Fair Access to the Professions, for example, notes that "opportunities to undertake internships are not fairly distributed" (2009: 101). According to the report, you are less likely to be able to do an internship if:
• You lack the means to work for free (socio-economic factors)
• You lack the means to travel or live near to the internship (geographic factors)
• You come from a background in which a professional internship is never considered or discussed (information factors). (Ibid.)

In response, the UK government committed to extend internship opportunities open to undergraduates and establish an online National Internship Service (Department for Business, Innovation and Skills 2010a: 2). In Scotland, this has (as noted above) been taken forward in a variety of ways including directly in collaboration with the university sector. However, debate continues around what defines an internship and the legal status of such positions viz. employment legislation and pay requirements. Practice remains highly variable. According to a CIPD survey 63% of employers paid their interns at least the minimum wage, with over a third either paying expenses or nothing at all (Wilmott 2011: 43).
Particular challenges arise in relation to student engagement in placements and internships, with opt outs provided to minimum wage legislation for “higher and further education students on a work placement up to one year” and “students required to do an internship for less than 1 year as part of their studies” (Direct Gov 2013). Clearly the legal necessity of payment is waived if work is done to secure course credit or as an integral part of a study programme however traditional one-year sandwich placements are generally paid. However, there are still considerable practical and ethical challenges posed by such a stance. From a practical perspective there can be perceived qualitative differences in how the student-employer relationship is managed in an unpaid vs paid scenario, with clearer employer-employee relations arguably facilitating a greater sense of responsibility on the part of both parties. There is also a particular practical challenge determining what constitutes ‘part of a student's studies’. For example, in the case of both TSIS and e-Placement students from across a range of courses and institutions were able to apply on an open application basis for the posts. While all positions were paid, some students were also able to utilise the experience to gain course credit. Boundaries between course of study, 'paid' work and indeed (particularly in the context of the third sector) volunteering are at times blurred from legal, practical and ethical perspectives.

3 Study Context and Methodology
Against this backdrop, there is a clear need to explore in more depth the critical questions that need to be asked and engaged with in the context of university support for internships and work placements. What is current practice? How is this perceived by students and employers? Are there changes in practice that universities could facilitate to improve the experience for the range of stakeholders?

Learning to Work Programmes
As noted above, the project was able to draw on the ongoing research and evaluation work being conducted by two programmes, e-Placement Scotland and Third Sector Internships Scotland. The TSIS programme offers students from all Scottish universities the opportunity to make a meaningful contribution to charities, social enterprises and voluntary organisations through completing paid internships. In doing so, students are able to apply their learning in a real world context, increase their confidence, and enhance their employability. It is a unique example of universities working in partnership with third sector groups to create nationwide impact and local level change. TSIS is led by The Open University in Scotland, Queen Margaret University, and the Scottish Council for Voluntary Organisations. In a similar vein, e-Placement Scotland, a partnership between Edinburgh Napier University, e-skills UK and Scotland IS, works with employers in the IT sector to create paid placements which are open to all students studying in HE and FE in Scotland. Taking a sector-based approach the project engages with all computing departments, working with students on positioning themselves to apply for and successfully complete a paid placement. Drawing on the insights and learning from across these two programmes offered a unique opportunity to access an extensive range of employer and student experiences. These encompass diverse employer contexts (geographic, sector, and organisational size), as well as students from different stages and disciplines or study and from different institutions.

A Note on Terminology
As noted above, the terminology around placements, internships and work experience is at times used interchangeably, yet can mask quite distinct differences in approach and relationship to employment law and practice (see Caddell and Mcilwhan 2011 for a full exploration). There are also distinct sector differences. For example, in establishing the e-Placement Scotland initiative, it was clear that the term ‘placements’ was most appropriate and signalled in that sector context that opportunities were paid and linked to subject discipline. In contrast, in the third sector ‘internship’ was more appropriate, distinguishing paid, development roles from more general volunteering or from placements associated with social work or other caring profession study programmes (Caddell & Mcilwhan 2011).
For this study, we attempted to clarify the terms used, whilst recognising the diversity of contexts employers and students were situated within. The term 'student work placement' was used and employers and students were informed that "a student work placement is where an organisation provides an opportunity to a student to spend a period of time in an organisation in order to complement their academic skills. We have used the term placement, yet the term internship is sometimes also used. Both are related to working with an employer to gain work experience, can be paid or unpaid and be of any length."

**Study Methodology**
The study's aims were to explore the motivations and experiences of employers in the context of paid and unpaid placements / internships, to collect data from a wide range of companies, from multi-nationals to small and micro enterprises. The key objectives were to understand existing practice and identify critical questions that could inform future action. We wished to develop a common set of data from across a range of settings, including both e-Placement Scotland and TSIS employers and students, and students engaged in credit-bearing, non-paid work placement courses at the University of the West of Scotland and Edinburgh Napier. Online surveys were developed and distributed via email to employers and students who had participated in these programmes over the last 12 months. The key focus of the survey was to open space for exploring perceptions of value of placements / internships and how this links to payment (or not) of the student. The survey covered three key sections: (1) General overview (demographic / organisational context data); (2) key drivers and motivations (disaggregated into paid and unpaid); and (3) future plans. Given the exploratory nature of the study, emphasis was placed on open-ended questions to elicit as detailed a set of responses as possible to help broaden our understanding of perceptions and practices. This was complemented by a set of closed questions where participants were asked to rank their responses to a range of statements about their values, motivations and experiences viz. placements / internships. After initial analysis of the responses from the surveys, a small number of follow-up interviews were conducted with nine employers and three students to provide additional 'rich' data to supplement the survey material and the case studies and other insights gathered via the core research and evaluation work of the two central programmes.

**Sample and Respondents: An Overview.**
The survey link was sent to 400 participants, consisting of 200 employer/ student pairs. Responses were received from 48 employer organisations, over half (58%) from the charity and voluntary sector. Other employers were primarily from the IT sector, with a few from other sectors. The majority of employers had offered paid placements / internships but a significant number had experience of both paid and unpaid student placements and / or volunteering. Student responses were received from 82 participants. The placements / internships that students had participated in were diverse in character. Over a quarter (28%) of the students are on one year full time placements, with the rest are divided between three months full time (18%), three months part time (23%) and six months part time (18%). In terms of sector, 35% of students had completed a placement / internship in the charity and voluntary sector, 32% in IT and information services and the rest across a range of finance, creative industry, public sector and other roles. The vast majority of students noted that their most recent placement / internship had been a paid opportunity (72 respondents), with only 10 reporting they had most recently undertaken an unpaid placement. However, a number of respondents had previous experience of unpaid placements / internships (26% of unpaid placements related to their course, 9% of unpaid placements unrelated to their studies).

**Emerging Themes and Critical Questions**
The responses from the surveys and interviews proffered a diverse range of experiences and perspectives on placement activity in general as well as the critical question of the qualitative significance of work being paid or unpaid. Whilst recognising that the sample was fairly small and covered a range of programmes and approaches to placements and
internships, there are clear themes emerging that raise critical questions for policy and practice in the field.

4.1 Motivations for Participation in Placements
For employers, the dominant discourse that emerged around motivations focused on the new skills and ideas that such an opportunity could bring in to the organisation, particularly related to a specific task or project that needed to be achieved within an allotted timeframe. These motives were tied to a large extent to the need to supplement existing staff resources to achieve particular goals, often in the context of considerable financial constraints. Yet, even at this initial, open-ended questioning stage, there was a notable interest in highlighting the ethical and practical challenges associated with paying (or not) for an intern. The following quotes from employers who participated in the TSIS programme are illustrative:

"Third Sector Internships offers an ethical alternative to the sorts of internships that have been favouring the children of the already well-off."

"As a small charity we valued the experience and knowledge a student could bring to the organisation. In return we also felt that the organisation had a lot to offer in terms of experience for a student - raising awareness of the variety of work in the third sector and in housing and equality. Having a young student around also enriched the dynamic of the staff and board group."

Employers who participated in the e-Placement Scotland programme similarly emphasise the issue of funding in the decision to offer placements, in this case organisational funding.

What is significant here is the recognition of the benefits to organisation and student of the placement / internship relationship and the opportunity to mutually develop and utilise skills that it presented. There is also a strong underlying recognition of an ethical commitment to pay people for the work they have engaged in, even in contexts where resources are tight. Resource constraints appear a determining factor in offering placements, be that financial, personnel or equipment constraints. Indeed, the process of recruitment, with the time and resource that involved, appeared daunting to many small organisations (Caddell 2012).

Student motivations for undertaking a placement (as articulated in open-ended responses) clustered around three main areas
To help their job prospects once they complete their studies (64 of 82 responses)
To help decide what kind of career they wished to pursue (46 / 82 responses)
To earn money (42/82 responses).

The distinction between the first two options is worth noting, with the second implying a more exploratory approach, rather than a targeted skills acquisition focus. A small number of the participants noted links between placement and course performance as the key driver for participation, with 15 respondents noting that they hoped it would help them ‘get the best possible degree result’ and five noting that it was an optional, assessed part of their course. From both employer and student perspectives, the key drivers associated with engaging in a placement opportunity were focused on the skills and experiences they could gain from the opportunity as a primary driver. Yet questions of resource, funding and finance are apparent in the discussion from a very early stage, forming a central theme in the responses even before specific questions about salary costs were explored. While resourcing goes beyond salary payments, to encompass supervisory staff time, desk space, recruitment costs and staffing expertise, it was the issue of salary costs that generated particularly vibrant discussion amongst the respondents.

4.2 To Pay or Not to Pay? An issue of equity and opportunity
Turning now to the central theme within our survey, perceptions of paid and unpaid placement opportunities, we see a range of discourses emerging. Employers were often torn between what they saw as an ethical imperative to pay for work done and the reality of the financial constraints they faced. Similarly students also felt torn between the need to gain experience in a relevant field in order to advance their careers and enhance their CVs, whilst
also needing to secure paid employment to be able to pay rent and other living and studying expenses.

**Why Employers Pay ... Or Not**

Employers were asked to consider why they decided to pay placement / internship students. An analysis of their level of importance places the statements in the following order of importance:

**Table 1: Influencing Factors in Offering a Paid Placement**

<table>
<thead>
<tr>
<th>Highest responses</th>
<th>Deciding Factor</th>
<th>No of responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>To ensure that the student feels like a valued member of staff</td>
<td>95%</td>
</tr>
<tr>
<td>2</td>
<td>To reward the student for the work done</td>
<td>83%</td>
</tr>
<tr>
<td>3</td>
<td>To encourage a professional attitude on the part of the student</td>
<td>77%</td>
</tr>
<tr>
<td>4</td>
<td>To encourage the best possible performance from the student</td>
<td>67%</td>
</tr>
<tr>
<td>5</td>
<td>To ensure that the organisation gets maximum value from taking the student on placement</td>
<td>67%</td>
</tr>
<tr>
<td>6</td>
<td>To get an intelligent, committed student who can be trained to do useful work at a reasonable cost</td>
<td>63%</td>
</tr>
<tr>
<td>7</td>
<td>Placement students are good value for money</td>
<td>45%</td>
</tr>
<tr>
<td>8</td>
<td>Because it's a job and jobs are paid</td>
<td>39%</td>
</tr>
<tr>
<td>9</td>
<td>To employ a bright and keen person at below market wage</td>
<td>17%</td>
</tr>
</tbody>
</table>

The data shows that the decision to offer paid as opposed to unpaid placements is focused on the student being valued and rewarded, followed by ensuring that the organisation gets the maximum value from the placement and encouraging the student in their professional attitude. Cost and value for money are lower down the priority ranking. Expanding on their responses, key comments focused on a recognition of the ethical-legal commitment to pay for work done, alongside a recognition of the constraints this put on the number, length and frequency of placements that could be offered. A common theme, notably from third sector organisations, was that they could only pay students if they were funded from other sources. There is a strong theme emerging in the employer responses about it is inappropriate not to pay for placements and internships of the length and level of work that was being undertaken. Commentary focused on how organisations were "strongly against unpaid internships" and an interest in paying Living Wage or appropriate 'market entry pay'. For those organisations who did not pay (or those that offered both paid and unpaid) the rationale was largely around resource constraints - they wished to provide opportunities for students, but did not have the resource to support salary costs in addition to other opportunity / resource costs of supporting a placement holder.

**Table 2: Influencing Factors in Offering an Unpaid Placement**

<table>
<thead>
<tr>
<th>Highest responses</th>
<th>Deciding Factor</th>
<th>No of responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>To provide student with an opportunity to develop their professionalism</td>
<td>88%</td>
</tr>
<tr>
<td>2</td>
<td>To give students a chance to put their skills into practice</td>
<td>84%</td>
</tr>
<tr>
<td>3</td>
<td>To allow us to offer placements without placing financial constraints on the organisation</td>
<td>49%</td>
</tr>
<tr>
<td>4</td>
<td>To allow us to offer placements without being too concerned about the value to the business</td>
<td>33%</td>
</tr>
</tbody>
</table>

Offering placements, whether paid or unpaid, was primarily driven by the business need for a particular piece of work to be done and the interest in providing a student with a development opportunity.

The financial burden of salaries was highlighted as a key barrier to sustained provision of paid opportunities. This was particularly apparent in the third sector organisations, where salary costs of a first internship were supported by the TSIS programme. As one
organisation noted, "We employed our intern through the third sector internships which was funded, if it had not been we would have been unable to financially commit to this. We would be interested in another round we would definitely take on again and if not would consider unpaid with travel and lunch supplied." Another noted that they saw qualitative differences between paid and unpaid placements, but financial constraints meant that they could not always offer payment. "We could not afford to pay 50% of a second paid work placement therefore all future placements will be unpaid. We expect more tangible outcomes from paid students whereas with unpaid / placements we ensure the focus is on the process more than the outcomes although these remain important.

Resource constraints are not just associated with salary costs, with decisions to withdraw placements (paid or unpaid) linked to constraints on staffing, equipment and desk space. As one employer noted, "We are unable to sustain a full time placement. We are expanding our business and have taken on more staff, so no longer have the desk space or equipment available for the students to use."

**Student Perspective: Payment as an Enabling Factor**

From a student perspective, there was a clear focus on the perceived benefits that embarking on a placement would have in terms of enhancing job prospects and making decisions about future career direction. Whether paid or unpaid, students felt they gained skills and experience relevant to their career and had grown in confidence as a result of the placement. The experience, rather than the payment per se was of primary significance. As one student, undertaking a paid placement, noted, "The placement was considered and applied for because of the experience I believed it would give me - not for the money."

Yet, there was a perception amongst respondents that receiving payment for a position did act as a marker of appreciation and highlighted the value given to the work they had done. Payment was linked to recognition of the value of the work and to feeling like "a valued employee" and "a more permanent part of the team". Some students had undertaken both paid and unpaid work or worked as volunteers so could comment on their different experiences:

"People do internships for a number of reasons. If employers can pay people on placement they should. However, I've done paid and unpaid and benefited from both. While unpaid placements create obviously inequalities for people that cannot afford to work for free, if they did not exist so many young people desperate to get experience and skills would lose this powerful resource."

"Unpaid placements are mostly disorganised and lack a structure. Often, when I worked as a volunteer I did not have a specific role and responsibilities. Instead, I was given tasks from different departments with no set times. Paid placement requires employees to create a development plan for their interns."

As was the case with employers (see Caddell 2012), there was a perception that the paid / unpaid distinction led to different levels of expectation being placed on the student. Greater responsibility and greater demands could be placed on paid placement students. As one student noted. "What I have observed about placements, the paid ones in particular, is that the employers ten[d] to treat them like job offers. Consequently, the expectations of skills and experience are higher than with unpaid placements."

This is reflected in the survey responses we received, with 93% of the paid interns / placement students reporting they had been given overall or significant responsibility for a task, compared with 70% of the students on unpaid placements.

While payment may not have been the primary motivation, it was seen as a key enabling factor, with many respondents noting that they would not be able to take on placements of any extended duration if they were not paid. As one TSIS intern noted, the payment was crucial in ensuring she could take on the position:

"If I had not been offered a paid internship, I would have had to get a job which did not provide such valuable experience e.g. waitressing, retail assistant. I have discussed the
experience in almost every interview I have had since and believe it was crucial in securing a job after my Masters. Thus, if I had not been offered a paid internship, I probably would not have secured the graduate job that I have gained since.”

For many, engaging in an unpaid placement was simply not financially viable, notably because, as one respondent noted, "at the current time it is extremely difficult to consider undergoing a placement that is unpaid due to time restrictions in allowing for a paid job alongside [a] placement and studying". As with the employers, there was also a strong focus in the open comment boxes on the ethics of unpaid placements and internships and the inequality of access that such practices facilitate. As one respondent noted:

"I think that unpaid placements create inequality of opportunity. It means that only those with the wealth to work without pay can access opportunities. This just exacerbates existing inequalities, and I think it's abhorrent that unpaid internships continue to be a feature of graduate employment markets worldwide."

Such sentiment echoed through much of the commentary from students. In the current economic climate, one respondent noted, "it is hard to sell unpaid placements" and that they imagined that "this will only get harder as levels of student debt increase with tuition fees changes". Unpaid placements were also viewed as "exploitative". One student noted a conversation with her employer on the issue of payment, "In the words of my manager: "The slave trade ended a long time ago, you do the work, you should be paid.""

There was some support for unpaid placements, primarily in the context of the need to gain experience and skills in order to be competitive in the job market. A small minority of responses highlighted the potential benefits of unpaid opportunities as they could be seen to demonstrate commitment and motivation to work in a particular field. As one individual stated they "can be more valuable than paid ones in my opinion, as they are reliant on motivation to do well - they really make you self-driven and willing to help others". In a similar vein, another student noted that, as her experience was not as rewarding as she had hoped, money became a key driver for her completing the programme of work.

"Having volunteered on occasions I think that experience and knowledge can be more important than being paid for work. I think the danger of paying for placements can be that money becomes the motivation and can make you put up with things that are not necessarily fair on you. When I am working hard and not being treated like an employee I have found that money becomes the motivation. At the end of the day, if you enjoy the work and value the experience then being paid does not matter. However, I believe expenses should always be provided for, and for 6 month internships payment is often necessary for the length of time. Initially, I would have done my internship unpaid but because it has been particularly hard work and, at times, I have felt unappreciated the money has been a key part of my motivation. So in my case, if I was not being paid, I may have lost interest or felt extremely disheartened as the experience was not what I thought it would be."

It is important to note that this perspective was exceptional within this study, with the vast majority of respondents noting a positive and rewarding experience on placement. Yet such views are important as they focus attention on the need to consider the placement experience as a whole, the support and development opportunities offered, and not just focus on the single issue of payment or non-payment to determine the value students and employers place on any piece of work. Support and guidance throughout the placement is crucial. As one respondent notes succinctly, "The structure of the internship needs to be clear and well planned for the student to feel he/she is making the most of the experience. Continuous guidance and supervision should be a must. The company I worked for gave me great opportunities for training. I think in general it is very important to get opportunities for networking and getting future employment or access to courses or training."
Refreshed Practice, Revitalising Debate

The insights from this study serve to further reinforce the importance of work placements and internships as a key element in any efforts by universities to support and enhance student employability. Students acknowledge the need for experience and the opportunity to develop their skills in a 'real world' environment. Employers also value the work done by their placement students, with high levels of satisfaction with work done and appreciation of the skills and fresh ideas students bring to the organisation.

The question of resources and, specifically, the payment of students on placements and internships, elicited strong views from both employers and students. The support, in principle, for paid opportunities is clear, with employers and students perceiving the placement experience to be qualitatively different in terms of the expectations and level and duration of work that can be expected of a placement holder. Such perceptions have implications both for the experience itself and for how it is presented and understood as part of further job applications and so on. Most evident throughout this study was the need for equity and openness in the recruitment of students for placements and internships, to counteract the perceived elitism within many existing routes into the professions.

In acknowledging the strength of these voices, and the groundswell of opinion in favour of tackling such inequalities of access, it is also important to review and revitalise existing practice and open space for rejuvenated debate around these themes across all key stakeholders. In opening such debate there are clear challenges for employers, universities and the HE sector more broadly. How placements are supported, financed and advertised requires critical consideration and review. Key areas for action include:

Payment for work done is important for both ethical and legal reasons.

There are also clear practical implications around the expectations that can be placed on students, the responsibility given, and the commitment that they can give to a post.

Paid opportunities enable greater participation, opening opportunities to those with the requisite skills not just those who can afford to work for free.

While students recognise the importance of gaining experience in the specific career they wish to pursue, financial realities mean many have to forego unpaid opportunities.

Broader student support and development must be built into placements and internships.

The value placed on such experience by students is primarily about the learning and development opportunities afforded and the chance to complete a meaningful piece of work in a 'real world' context. Payment is an enabling factor, not the core focus of value.

Employers require support and development.

Supporting a student in a placement is resource intensive. While employers get real value from having fresh ideas and skills brought into the organisation, there are resource implications that go beyond salary payment. Many employers (notably small and micro organisations) may also require support and guidance on recruitment and supervision of students to facilitate a meaningful learning and development opportunity. Universities need to consider how they can - individually or collectively - help support efforts in this area as part of their broader student employability and employer engagement efforts.

Universities need to consider their own practices in relation to recruitment and payment.

Consideration needs to be given to placements / internships run by universities themselves in relation to the paid / unpaid debate. In addition, thought must be given to whether it is appropriate or desirable for universities to advertise and endorse unpaid placements on vacancy sites.

Developing and sustaining meaningful work placement opportunities is expensive.

Critical consideration needs to be given to the most effective mechanisms for developing and supporting placements across the HE sector - sector-wide, institution-based or regional efforts have different levels of scale and associated resource and management implications. Emerging from our study is clear evidence that students want to rise to the challenges of the world of work: they are shown to be both willing and able. Universities clearly have a key role to play in revitalising policy and practice and opening up debate about how to offer students meaningful, ethical, and fair opportunities to enhance their employability.
References
Promoting Self-Regulated Learning Skills in Undergraduate Students Using a Group-Based Training Programme

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National University of Ireland, Maynooth

ABSTRACT:
Considerable research has indicated that self-regulated learning is a strong predictor of academic achievement. This paper reports on a six session, group-based programme involving seventeen undergraduate students, including eight students who had not passed at least one previous examination. The aim of the programme was to introduce and help the students to acquire strategies to support their learning, for example, memory techniques, time management practices, and reflective thinking skills. Before commencing training, the types of learning strategies employed by the students were assessed. This data was used to inform the design of the sessions, most notably in terms of introducing strategies that the students were unfamiliar with. Results indicated an increase in the use of certain learning strategies following programme completion, specifically in help seeking and peer learning behaviours. As part of the follow-up to the initial sessions, the academic performance of the students will be monitored in the coming months.

1 Introduction
Making the transition to higher education can be potentially challenging for a number of reasons. Aside from the social, emotional, and financial challenges faced by students, there are various learning related challenges to be negotiated within each course, in particular, the expectation that students will assume a far greater responsibility in managing their own learning. While there are always students who aspire to perform well academically, it cannot be assumed that all of these students will automatically know how to set about working towards reaching their academic goals. An unfortunate consequence of this is that high levels of motivation to succeed and do well may soon deteriorate simply because a student is not equipped with the skills or knowledge needed to achieve his or her goals (Pressley, Yokol, van Meter, Van Etten & Freebern, 1997). Over the past decade, concerns have been voiced that an increasing number of students may not be adequately prepared to cope with the academic demands associated with studying at this level (Drew, 2001; Tuckman & Kennedy, 2011; Wingate, 2007). Possible contributing factors to this lack of preparedness have been identified. For example, in Ireland, the structure of the state examinations completed by secondary school students (referred to as the Leaving Certificate) has come under scrutiny (see Hyland, 2011). At present, a points based system is employed, with the number of points obtained in the Leaving Certificate largely determining the course a student is offered. One of the primary concerns surrounding the current system is that it encourages students to adopt learning strategies that may not be particularly effective or conducive when it comes to facilitating learning in higher education (e.g., rote learning). As a result, the possibility is that some students entering university directly from secondary school may not have acquired the essential learning strategies and skills needed to cope with the demands of their new academic courses, especially the type of critical thinking skills that are often required. Enhancing our understanding of ways to support students and devising methods to help them along their academic journey have become important topics for teachers and researchers to explore. Indeed, many institutions have designed and introduced workshops to help students develop core study related skills. The current paper reports on one such programme that was piloted this past year with students from the National University of
Ireland, Maynooth (NUI Maynooth). One of the aims of this programme was to provide an opportunity for students to learn about strategies that could be put into practice as aids to help them on their courses, in particular when studying by themselves. Thus, there was a focus on helping students to acquire skills related to self-regulated learning. More specifically, the programme was developed to support students potentially at risk of academic underachievement.

1.1 Becoming a self-regulated learner

Part of the transition from post-primary education to higher education entails a far greater emphasis on self-directed or self-regulated learning. Zimmerman (2008) describes self-regulated learning as ‘proactive’ learning. In this way, learning is conceptualised as an activity that students themselves undertake, as opposed to something that happens passively to students as a result of what they are taught.

Various definitions of self-regulated learning are offered within the literature (Virtanen & Nevgi, 2010). There is, however, general consensus that self-regulated learning is not a unitary skill. Instead, there are various processes that encapsulate self-regulated learning including cognitive, metacognitive, motivational and behavioural components (Boekaerts & Cascallar, 2006). From an educational psychology perspective, many of the existing models of self-regulated learning (e.g., Pintrich, 2000; Zimmerman, 1998) highlight the cognitive and metacognitive learning strategies implemented in self-regulated learning. Organising information (e.g., establishing categories) and elaborating on material (e.g., paraphrasing) are some examples of typical cognitive learning strategies. Activities such as monitoring performance (e.g., assessing comprehension when reading) and devising plans (e.g., establishing learning goals) can be characterised as metacognitive learning strategies. Metacognitive strategies have a further key role to play in helping to guide the selection and implementation of different cognitive strategies by learners (Glogger, Schwonke, Holzäpfel, Nückles & Renkl, 2012). For instance, recognising when a change in strategy may be necessary (e.g., using an acronym to help remember the order of stages of a theory rather than simply reading about the theory).

Previous research has shown a link between the use of self-regulated learning strategies and academic achievement. Students who score highly on measures of self-regulated learning are more likely to achieve higher marks in examinations and assessments (Gettinger & Seibert, 2002; Kitsantas, Winsler & Huie, 2008; Kornell & Metcalfe, 2006). Despite the importance attached to self-regulated learning, for some students there can be a mismatch between the expectation of self-regulated learning and the actual skills that students have previously acquired that will enable them to function as self-regulated learners (Snowman & Biehler, 2006). Potentially, if the acquisition of skills contributing to learning is compromised in some way, this can have adverse implications for academic achievement, most notably, progression. Although the factors contributing to student retention are complex and multifaceted (Christie, Munro & Fisher, 2004), research has indicated that learners who are underprepared for the academic demands associated with higher education may be at risk of non-progression (Wingate, 2007).

Fortunately, studies have demonstrated that many of the skills underlying self-regulated learning can be acquired through training, modelling or intervention type programmes (e.g., Hattie, Biggs, & Purdie, 1996; Hofer & Yu, 2003; Tuckman & Kennedy, 2011). The content of these programmes can vary greatly. Some programmes tend to focus on helping learners to develop very broad learning related skills that can be applied irrespective of the subject that is being studied (e.g., how to read and comprehend a textbook chapter). Yet as noted by Weinstein, Meyer, Husman, McKeachie and King (2011) that is not to say that other explicit, subject-specific learning strategies should be overlooked. Every discipline will value certain unique skills (e.g., devising and testing hypotheses in science subjects) and learners also need to develop these skills to help them succeed on their chosen course. Aside from the content of these learning skills programmes, the timing of when such supports are introduced is also critical. As with many interventions, the benefits to learners may be
enhanced when early access to these programmes is available (Richardson, Abraham & Bond, 2012). Given that rates of withdrawal from university are typically highest in the first year of study (Wingate, 2007) interventions specifically targeted at students beginning their undergraduate academic careers may be helpful.

1.2 The current research

Balancing curriculum demands within structured degree courses can mean that there is not always sufficient time for teachers to help students learn the skills needed to become self-regulated learners. Our aim in the current research was to pilot a supplementary short-term learning skills programme that would provide an opportunity for students to learn and practise some of the cognitive and metacognitive learning strategies associated with self-regulated learning. The programme was aimed at students in their first or second year of study, in particular, students who may be underachieving academically. That is, students who may not have passed one of their degree modules at the initial attempt, or students who believe that they should be achieving higher than their present academic performance. An additional aim of the programme was to further understand the types of learning strategies that the students were using prior to the start of the training. In other words, for this particular group of students, we sought to explore to what extent the students did or did not engage already in self-regulatory learning behaviours. To this end, the Motivated Learning Strategies Questionnaire (MLSQ; Pintrich, Smith, Garcia & McKeachie, 1991) was administered to obtain an estimate of how likely it was for the participants to employ certain learning strategies (e.g., when reading for my course, I make up questions to help focus my reading). Collecting this information enabled us to pinpoint more precisely some of the areas that the students might benefit from guidance in, especially in terms of raising awareness of potentially effective strategies that may have been unknown or infrequently used by the students (e.g., linking new material to previously acquired information). We were also interested in investigating whether there were any changes in the participating students' use of learning strategies following completion of the programme.

Students at NUI Maynooth study at least three different subjects in their first year at university, with many students continuing to study two subjects in the remaining two years of their degree. Thus, in terms of the initial content of the pilot programme, we opted to focus on helping the students to develop general learning strategies that would be relevant across a range of subjects, as opposed to concentrating on more domain-specific strategies. Although learning about explicit learning strategies (e.g., memory techniques, note taking skills etc.,) is important, acquiring these strategies alone is not sufficient. Effective independent learning also involves reflection (Amalathas, 2010; Masui & De Corta, 2005). Several of the models of self-regulated learning make reference to the role of reflection (e.g., Pintrich, 2000; Zimmerman, 1998). While there are many definitions of reflection available (see Moon, 2004), in the context of this paper, we focus on the element of reflection that entails learners thinking about their own learning experiences in order to understand more about how they themselves learn and how they can improve their own learning in the future. Recently, a new training protocol referred to as the Narrative Mediation Path has been developed by Freda, Esposito, Martino and Monteagudo (2012) to facilitate the emergence of reflective thinking skills in students at risk of academic underachievement. Over the next two years, as part of the INSTALL\(^4\) European research project, the Narrative Mediation Path is being tested and evaluated in four countries, including Ireland. Given that reflection is fundamental to learning, aspects of the Narrative Mediation Path were incorporated into the current programme to encourage students to reflect on the types of changes that might be needed to improve their learning (as described in Section 2.2.2 below). One of the

\(^4\) INSTALL, Innovative Solutions to Acquire Learning to Learn, is a European funded project (Erasmus Multilateral Projects no. 517750-LLP-1-IT-ERASMUS-ESIN). Partners involved are the University of Naples, Italy; University of Seville, Spain; National School of Political and Administrative Studies, Romania; and National University of Ireland, Maynooth. This paper reflects only the views of the authors and the Commission cannot be held responsible for any use which may be made of the information contained therein.
advantages of the Narrative Mediation Path is that it is a group-based method, thereby enabling individuals to reflect on their own and their peers’ experiences.

2 Method

2.1 Participants

Seventeen NUI Maynooth undergraduate students (15 females, 2 males) in their first or second year of study volunteered to take part in the first round of the programme. The median age of the participants was 19 years (range, 18 to 22 years). These students represented a range of departments from within the university including: Chemistry; English; French; Geography; Law; Music; Psychology; and Social Studies. In terms of their previous academic performance, eight participants had not passed at least one examination at the initial attempt (although the examination was passed at a subsequent attempt). Through collaboration with the Academic Advisory Office at NUI Maynooth, these eight students were invited to take part in the programme as they had previously expressed concerns relating to their ability to study efficiently. The remaining ten students were self-reporting participants who independently responded to the recruitment materials displayed across the university campus to raise awareness of the upcoming programme. Ethical approval for this programme was sought and obtained from the University Ethics Committee. In addition, all students provided written consent to take part in the programme.

2.2 Procedure

There were three phases in this programme as follows: (i) pre-training measures; (ii) group sessions; (iii) post-training evaluation and tracking academic performance.

2.2.1 Phase one - Pre-training measures

Prior to the start of the sessions, all 17 students completed the learning strategies subtest of the MSLQ (Pintrich et al., 1991). Although there is also a separate section on the MSLQ to assess motivation, for the purposes of the current programme we only administered the learning strategies subtest. Within this subtest there are five scales indexing use of cognitive and metacognitive strategies (e.g., rehearsal, elaboration, organisation, critical thinking, metacognitive self-regulation); plus four scales assessing resource management strategies, which include time and study environment, effort regulation, peer learning and help seeking. In total, there are 50 items to respond to. A Likert scale is used to signal responses, with participants circling a number ranging from 1 (not at all true of me) to 7 (very true of me). Sample items found on the MSLQ include statements such as "I make lists of important terms for this course and memorise the lists", and "when I study for this course, I set goals for myself in order to direct my activities in each study period".

Following the initial one-to-one meeting with participants to brief them as to the structure of the programme, we also spoke to the students individually using informal interviews to ascertain details on what aspects of learning at university they were enjoying and what learning activities they were finding somewhat challenging. Additionally, participants wrote about their academic experiences in response to a series of open-ended questions (e.g., "what are the main factors that you feel have influenced your university performance?") When reviewing the interview records and written responses, common themes to emerge related to concerns about time management, retaining information and coping with the course work-load (e.g., feeling overwhelmed by the amount of reading required). Throughout the sessions, we ensured that we made reference to these concerns, discussed them further with the students as a group, and where possible, presented actual strategies that could potentially be used to address some of these issues (e.g., devising schedules to plan study activities).
2.2.2 Phase two - Group sessions

Students commenced attending the sessions in October 2012 which was the first semester of the current academic year. As shown in Table 2.1, the programme was comprised of six sessions. Each session lasted for approximately one hour and students came to one session every week. Based on their timetable availability, students were randomly assigned to one of three groups. There were two groups composed of five students and one group of seven students. Groups remained unchanged for the sessions as we felt that such consistency was important to encourage group cohesion. All sessions were facilitated by the first author of this paper.

Table 2.1 Overview of the programme sessions.

<table>
<thead>
<tr>
<th>Session</th>
<th>Focus of session</th>
<th>Narrative stimuli used (where appropriate)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learning to learn</td>
<td>What are the components of learning? For example, attention, memory, motivation, evaluating progress etc.</td>
<td>Proverbs and mottos (e.g., two heads are better than one, if at first you don’t succeed…) to discuss potential learning strategies.</td>
</tr>
<tr>
<td>Memory</td>
<td>Ways of encoding, organising, and elaborating on information, practising mnemonics (memory techniques).</td>
<td>Journal writing (reflecting on why some learning strategies are more effective than others).</td>
</tr>
<tr>
<td>Study strategies</td>
<td>Note taking, what to do when reading texts, question generating, summarising and paraphrasing, peer learning (e.g., use of study groups).</td>
<td>Vignettes of various university scenarios (e.g., examinations, attending lectures, writing essays), planning time to accommodate these activities.</td>
</tr>
<tr>
<td>Time management</td>
<td>Preparing timetables, scheduling learning activities, addressing procrastination.</td>
<td>Drama and role play (what do you hope to achieve? How could you go about trying to accomplish this?)</td>
</tr>
<tr>
<td>Goal setting</td>
<td>Forming goals, planning, implementation (putting into action), monitoring and reviewing progress.</td>
<td></td>
</tr>
<tr>
<td>Motivation</td>
<td>How do goals influence motivation? Ways to maintain interest in learning, using rewards, looking at self-beliefs.</td>
<td></td>
</tr>
</tbody>
</table>

Due to the overall short length of the programme, we opted to present one key topic in each session. For example, memory was the focus of one session. However, reference was continually made back to previously covered topics. For instance, when demonstrating strategies to use when reading, the information presented on how memory works was discussed again. Likewise, when exploring motivation, reference was made to the material covered on setting goals. Across the sessions, students attempted a variety of activities as individuals, in pairs, or as a whole group. Typically, many of the strategies were discussed and modelled firstly by the session facilitator, after which the students themselves practised the strategies.

To encourage reflection, we employed a selection of the narrative stimuli prepared by Freda et al. (2012). Specifically, we chose to incorporate the metaphors, vignettes, journal writing and role play tasks, used in the Narrative Mediation Path training protocol developed by these researchers. Examples of the types of narrative based tasks can be seen in Table 2.1. One of the advantages of the narrative stimuli such as the vignettes is that the stimuli depict everyday events that all of the students can readily identify with. As such, the narrative stimuli often functioned as a vehicle to initiate discussions which all of the group members
could contribute to. Furthermore, the small group setting in which students had become familiar and comfortable with one another presented an ideal opportunity to discuss these issues in an open and unbiased environment.

2.2.3 Phase three - Post-training evaluation and tracking academic performance

Given that this was a pilot programme, it was imperative to obtain feedback from the students as to areas where the programme could be improved. A questionnaire containing a number of statements to which participants indicated their level of agreement was completed. Statements were constructed to probe for any changes in the use of learning strategies (e.g., "since starting the programme I have actually tried to use some of the strategies that were shown in the sessions") and to indicate to what extent the students found the programme useful (e.g., "usefulness of the programme for my university career/future life"). Several open-ended questions were also included on the questionnaire, for example, "what did you like/not like about the programme?" Finally, the participants also completed the MSLQ following the end of the sessions.

At the time of writing this paper, the examination period for students at NUI Maynooth is about to begin. As the examination results are released in the coming months, we will be gathering further data on the examination performance of the participating students.

3 Results

3.1 Motivated Strategies for Learning Questionnaire

3.1.1 Influence of the pre-training data on session content

High scores on the MSLQ (i.e., scores greater than 4) indicate that participants engage in these strategies regularly. Low scores (i.e., scores less than 4) suggest that the strategies are employed less frequently, or not at all. From the initial pre-training MSLQ scores, it was observed that very few of the students employed peer learning strategies (mean = 2.94). For example, given the question, "when studying for this course I often try to explain the material to a classmate or friend", 11 of the 17 students reported that this was not true of them at all. Likewise, variation was evident in the use of help seeking behaviours. While nine students reported frequently asking other students to explain unfamiliar concepts to them, conversely, only four of the students scored above 4 in response to the question "I ask the instructor to clarify concepts I don't understand well". Based on these initial observations, during the sessions, particular care was taken to highlight the benefits of help seeking and peer learning activities such as going to lecturer consultation times to seek clarification, or forming study groups to discuss challenging topics with other students.

3.1.2 Comparing pre-and post-training MSLQ scores

A series of paired t-tests were undertaken to explore if there were differences in the pre-and post-training scores for each of the scales included in the learning strategies subtest of the MSLQ. The results of these comparisons are reported in Table 3.1. From Table 3.1 it can be seen that there were statistically significant increases in scores following completion of the sessions for four of the nine scales; elaboration, organisation, peer learning and help seeking, but not for rehearsal, critical thinking, metacognitive self-regulation, time and study environment or effort.

<table>
<thead>
<tr>
<th>Learning Strategies Scale</th>
<th>Pre-training: Mean (SD)</th>
<th>Post-training: Mean (SD)</th>
<th>t(16)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rehearsal</td>
<td>4.22 (1.29)</td>
<td>4.52 (0.86)</td>
<td>1.04</td>
</tr>
<tr>
<td>Elaboration</td>
<td>4.60 (1.11)</td>
<td>5.31 (0.79)</td>
<td>3.14**</td>
</tr>
<tr>
<td>Organisation</td>
<td>4.27 (1.31)</td>
<td>5.27 (1.07)</td>
<td>3.15**</td>
</tr>
</tbody>
</table>
Critical thinking | 3.69 (1.28) | 4.37 (0.91) | 2.11
Metacognitive self-regulation | 3.79 (0.82) | 4.11 (0.87) | 1.88
Time and study environment | 4.46 (0.93) | 4.69 (0.79) | 1.33
Effort regulation | 4.87 (0.89) | 5.13 (1.14) | 1.37
Peer learning | 2.94 (0.72) | 3.75 (1.37) | 2.38*
Help seeking | 3.69 (1.01) | 4.52 (1.43) | 3.79**

Notes: * p < .05; ** p < .01

3.2 Evaluation of programme

3.2.1 Impact and usefulness of sessions

As shown in Table 3.2, all of the students agreed or strongly agreed that they had attempted to use some of the strategies demonstrated in the sessions when studying themselves. Similarly, apart from two students who responded that they neither agreed nor disagreed, the remaining 15 students agreed or strongly agreed that they had made changes to their study practices following completion of the sessions.

Table 3.2 Self-reported changes in learning strategies (n = 17). Percentage of responses is shown in parentheses.

<table>
<thead>
<tr>
<th></th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Neither agree or disagree</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>This programme has given me ideas for different things that I might think about trying out when studying.</td>
<td>0 (0)</td>
<td>0 (0)</td>
<td>0 (0)</td>
<td>6 (35)</td>
<td>11 (65)</td>
</tr>
<tr>
<td>Since starting this programme I have actually tried to use some of the strategies that were shown in the sessions.</td>
<td>0 (0)</td>
<td>0 (0)</td>
<td>0 (0)</td>
<td>11 (65)</td>
<td>6 (35)</td>
</tr>
<tr>
<td>Since starting this programme I have made changes to the way that I study.</td>
<td>0 (0)</td>
<td>0 (0)</td>
<td>2 (12)</td>
<td>9 (53)</td>
<td>6 (35)</td>
</tr>
</tbody>
</table>

Table 3.3 Usefulness of training (n = 17). Percentage of responses is shown in parentheses.

<table>
<thead>
<tr>
<th></th>
<th>Extremely useless</th>
<th>Very useless</th>
<th>Quite useless</th>
<th>Do not know</th>
<th>Quite useful</th>
<th>Very useful</th>
<th>Extremely useful</th>
</tr>
</thead>
<tbody>
<tr>
<td>Usefulness of programme in developing learning to learn skills</td>
<td>0 (0)</td>
<td>0 (0)</td>
<td>0 (0)</td>
<td>0 (0)</td>
<td>4 (24)</td>
<td>7 (41)</td>
<td>6 (35)</td>
</tr>
<tr>
<td>Usefulness of programme for my university career</td>
<td>0 (0)</td>
<td>0 (0)</td>
<td>0 (0)</td>
<td>0 (0)</td>
<td>5 (29)</td>
<td>3 (18)</td>
<td>9 (53)</td>
</tr>
<tr>
<td>Usefulness of programme for my future life</td>
<td>0 (0)</td>
<td>0 (0)</td>
<td>0 (0)</td>
<td>2 (12)</td>
<td>5 (29)</td>
<td>2 (12)</td>
<td>8 (47)</td>
</tr>
</tbody>
</table>

Students were also asked about the usefulness of the programme in relation to: (i) developing their learning to learn skills; (ii) their university career; (iii) their future life. As shown in Table 3.3, for each of these three items, the majority of students indicated that the programme was at least quite useful, with over half of the students choosing the very useful or extremely useful option for each of these three questions.
3.2.2 Suggestions for improvement

From the initial feedback received, a number of points for consideration were raised. Firstly, students mentioned that they would like further follow-up sessions during the second semester. Secondly, many of the comments detailed how students would like to learn more subject-specific learning strategies. For example, one student wrote "include suggestions for how to study for a science course". Another student remarked "would like more information given on how to structure an answer for arts subjects (e.g., essay style answers)".

4 Discussion

Beginning in October 2012, we piloted a new programme that aimed to help students build their repertoire of strategies and skills that could be used to support their learning and studying, and in particular, to help them acquire skills to manage their own learning. Slightly under half of the students who participated in the programme had previously been unsuccessful in passing one of their course examinations. Administering the MSLQ and talking to the students prior to the start of the programme helped us to identify areas to focus on in the sessions. Given that several participants obtained low scores on the help seeking scale of the MSLQ, a deliberate effort was made to talk about potential help seeking strategies during the sessions. It transpired that quite a large number of the students were unaware of the support services currently offered at the university, for example, supports such as the Academic Writing Centre. Within the sessions this opened up an opportunity to establish a group goal for each group member to attempt to go along to the next drop-in session at the Academic Writing Centre. To the current day, many of the students who took part in the programme still continue to visit this support service. Additionally, several students decided to arrange study groups after we talked in the sessions about the benefits associated with learning alongside other students.

Overall, rather than reiterating practices that the students reported engaging in already, we tried to promote strategies that the students appeared not to be adopting, especially those strategies shown by previous research to be effective for learning (e.g., using questions, see Campbell & Meyer, 2009). The initial data helped us to tailor the sessions more specifically to meet the learning needs of the participating students. Furthermore, when comparing the pre- and post-training MSLQ data, there was an increase in the frequency with which students reported using learning strategies associated with peer learning and help seeking.

As mentioned above, strategies relating to these areas were emphasised in the sessions. The decision to focus on general learning strategies rather than subject-specific learning strategies resulted mainly because all of the participants studied different disciplines. Notably though, many of the students requested greater inclusion of such subject-specific strategies. Research has highlighted the importance of helping students to acquire a combination of generic and domain-specific learning strategies that can be used to aid learning in their chosen course (see Weinstein et al., 2011, for review). When revising the current programme, we will explore how we can try to incorporate more subject-specific learning strategies.

Although the programme is exploratory and small in scale at this stage, the lack of a control group is a recognised limitation. However, we hope to be able to further test the efficacy of the programme with a greater number of students and incorporate a control group. Similarly, the disadvantages associated with self-report measures are clearly identifiable. Questions remain as to how accurate the self-report data that we collected is. Certainly, it is possible that the students may have been reluctant to respond honestly on the questionnaires that they were not using some of the strategies, particularly if they felt that they should be using these strategies. In addition, it is difficult to determine whether the length of the training is sufficient enough to yield any real gains in the academic performance of the participants, or indeed, any long-term changes in their study behaviours. Aside from the post-training questionnaire data, the students did discuss their attempts to employ some of the strategies
and techniques introduced in the sessions into their own studies. It would be useful to have
further quantitative measures of this, not only in the immediate aftermath of the programme,
but also over a longer period of time. This is something that we hope to address when
looking at the follow-up stages to the programme.

References

practice in England and abroad, CFBT: London

Boekaerts, M & Cascallar, E (2006) How far have we moved toward the integration of theory
and practice in self-regulation? Educational Psychology Review, 18, pp 199-210

Campbell, J & Mayer, R E (2009) Questioning as an instrumental method: Does it affect
learning from lectures? Applied Cognitive Psychology, 23, pp 747-759

between continuing and non-continuing students. Studies in Higher Education, vol 29, no 5,
pp 617-636

Drew, S (2001) Student perceptions of what helps them learn and develop in higher
education. Teaching in Higher Education, 6, pp 309-331

disadvantaged students: A model for intervention in higher education. Paper presented at
the ESREA Conference, Odense, Denmark

Gettinger, M & Selbert, K (2002) Contributions of study skills to academic competence. The
School Psychology Review, 31, pp 350-365

assessed by journal writing: Prediction of learning outcomes by quantity, quality and
combinations of learning strategies. Journal of Educational Psychology, vol 104, no 2, pp
454-468


Hofer, B K & Yu, S L (2003) Teaching self-regulated learning through a "learning to learn"
course. Teaching of Psychology, 30, pp 30-33

Hyland, A (2011) Entry to higher education in Ireland in the 21st century, available at:

42-68

Kornell, N & Metcalfe, J (2006) Study efficacy and the region of proximal learning
framework. Journal of Experimental Psychology: Learning, Memory and Cognition, 32, pp
609-622


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Curriculum Innovation

Vibrant and engaging online social learning: an innovative response to threatened part-time study in Higher Education

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University of Huddersfield

ABSTRACT: Austerity measures and increased tuition fees place heightened pressures on universities to provide sustainable, cost effective, high quality provision. This paper analyses how a team of staff in a School of Education at a UK University are leading collaborative work with partner colleges, to deliver a model that ameliorates the financial pressures, whilst developing high quality student-centred engagement for part-time students. When face-to-face teaching sessions were significantly reduced, an online academic social network for tutors and students was introduced to encourage collaboration, peer support and 'coffee room' discussion. Feedback from participants through focus groups and surveys confirmed a social support network as important for engagement and was perceived as supporting achievement, even by those who were reluctant to join the network. Recommendations include: more time face-to-face at the beginning of the course, more online tutor presence and scaffolded activities to build confidence in using an academic social network.

Introduction
This paper begins by describing recent changes in the delivery of a part-time Educational Studies Degree at a UK University. The first section is an explanation of how the course team has endeavoured to retain the core values and philosophy of the course, despite tighter constraints on contact time and class size. The use of blended learning and a social learning network in the first year of delivery is outlined, before moving on, in section two, to describe the methodology used to investigate how students of the course have responded. The third section of the paper reports on the outcomes of this investigation. In the fourth section, the implications of the use of social learning networks are further explored and recommendations for future developments made before concluding in the final section.

1 Context
UK governments have increasingly identified Higher Education Institutions (HEIs) as key players in the production of flexible knowledge workers for the new global economy. The neoliberal marketisation of education by all political parties in office over the past 25 years has created a shift in thinking about HE provision. What counts as 'world class education' and its purpose in economically stringent times has become a highly contested notion and there are differing perspectives on how to balance economy, quality and social justice. The call of the Browne Review (2010) to 'secure a sustainable future' for UK HE through a competitive marketplace was used in September 2012 to justify a new funding structure that removed much of the public funding and introduced substantially higher student fees. Despite the availability of student loans for part-time students, this has resulted in fewer overall applications for many HEIs (Ratcliffe, 2012). At the same time, growing international and private provision delivered in increasingly flexible formats demands a response. The metaphor which the course team used to visualise these new pressures and constraints was of themselves as the innermost of a series of Russian dolls, the outermost of which is globalisation, within which lies neoliberal ideologies, the UK coalition Government, their educational policy and the implementation of that policy within the HE sector and at institutional level. At times congruent with and at others running counter to the direction and constraints dictated by this context, the course team approached curriculum design by looking for the 'rattle room' that would enable them to hold on to their core educational values and to continue to deliver the kind of educational experience they believed to be of
value to their students. In particular, as one type of educational space in the form of class contact time became scarce, other spaces within which educational outcomes could be achieved were sought. Coffield's (2008, p 1) invitation to 'Just suppose that teaching and learning became the first priority,' underpinned their response and informed their choices wherever possible. This lead to a radical redesign of the course in question, which made use of novel spaces for teaching and learning, including an online social network open only to students and tutors of the degree.

This degree is a key progression route for teachers and trainers working in the lifelong learning sector. Students have typically completed a Certificate in Education or a Diploma in Teaching in the Lifelong Learning Sector prior to enrolment. Their aim is to obtain a full honours degree that is professionally relevant to their work in post-compulsory education and training. From its inception as a Bachelor of Education programme in the early 1990s, it has evolved into a two year, part-time Bachelor of Arts degree, delivered across a consortium that includes the parent HEI and 16 partner colleges across the North of England. The delivery model has hitherto been a pattern of weekly, three hour classes, with separate cohorts at each of the centres. Starting in September 2012, face-to-face contact became limited to nine Saturday day schools across two academic years. At the same time and largely due to fee increases, cohorts at each of the centres dwindled, so that they were no longer financially viable as stand-alone provision. The day schools were therefore operated at regional level, with students from a number of different colleges converging on a regional centre. This pooling of resource and effort meant that cohorts as small as two students at any given centre were nonetheless financially viable. This was important in terms of the survival of the course but also in terms of the availability of opportunity at a local level for adult returners to education, whose lives and commitments root them to a particular locale. Selwyn's (2010) work highlights the contrast between this and young people's social autonomy when choosing where, when and how to engage in Education. The issue was seen therefore as not merely a set of economic considerations but also as one of opportunity and social justice, regardless of the age of participants and their status as parents, carers or breadwinners for a household.

At the heart of the degree lies the desire for individuals, previously trained as teaching practitioners, to acquire a sense of agency with regard to their work in education. Their prior teaching qualifications are aimed largely at developing them as highly effective teachers and trainers. The degree aims to enable them to contribute to wider debates in society about what education is and ought to be and to carry out good research that can be used to contribute to those debates:

distinguishing between 'merely useful knowledge' - the kind of knowledge that keeps people in their place and supports the status quo, and 'really useful knowledge' that enables people to … understand the root causes of the circumstances in which they find themselves. (Thompson, 2000, p 2)

They need, therefore, to become confident in the use of what Freire calls the dominant syntax (2000): ways of speaking that enable people to question and perhaps influence what happens in society beyond the local level in which practitioners typically operate. Many of the adult returners on the degree, however, lack confidence in their ability to express their ideas in an academically convincing and persuasive way. A key plank in the delivery strategy has, therefore, been the provision of regular, iterative dialogue, through which students can develop a confident, well-informed, professional voice, both in writing and in speaking. Weekly classroom sessions provided plenty of scope for this. In redesigning the programme around radically curtailed class contact time, it was essential to find spaces in which this dialogue could be maintained and developed. It has been acknowledged that there are few radical course designs or examples where technology is proven to enhance student interaction and communication (Sharpe et al, 2009). However, a careful choice of
platforms within a blended learning approach was felt to offer the best chance of maintaining a viable, learning-led offer that would engage and empower the non-traditional students at whom the course was aimed, helping them to develop the 'really useful knowledge' that comes about:

when individuals and groups begin to reflect upon their experience with each other ... which enables theories to be developed and linked to strategies for bringing about changes. (Thompson 2000, p.2).

This is a fundamentally social activity and a prime motivator for the course team in identifying social networking as a potentially productive environment for this kind of learning.

For the purposes of this study, blended learning is defined broadly as a combination of online learning with face-to-face sessions. Bersin and Associates (2003, p.2) noted that corporate interests have found blended learning programmes had the 'highest impact, lowest cost' affordances, though were most effective when human interaction surrounded and supported the online component. The efficiency and economic value of the business perspective does not necessarily transfer directly to education, but can arguably be promulgated through the development of interdependent 'communities of inquiry' (Garrison and Vaughan, 2008, p.9). A sense of belonging is described as essential in order to sustain such a community, with a social presence proposed as of equal importance to the cognitive and teaching aspects of the course. It is well documented that high drop-out levels in blends of e-study can be attributed to the lack of a sense of belonging (Tinto, 1987; Sweet, 1986; Cohen & Garcia, 2008) and this further supports the emphasis on the social element of online learning in this instance. The blend arrived at therefore, endeavours to make provision for interplay of social, cognitive and teaching presence (Garrison & Vaughn, 2008) and is represented conceptually in Figure 1.

The students can draw variously from each of the elements of the blend to access academic content, discuss their ideas with a tutor or seek peer support, depending on their specific needs at any particular point in the course. Whilst the Virtual Learning Environment (VLE) has some social affordances through discussion boards and group email, blog and wiki functionality, it was felt to be inadequate to support the frequency, degree and type of interaction that the course relies upon for some of its key outcomes. The alternative, social platform that was selected to address this perceived shortfall in the VLE was the Microsoft offering, Yammer ©, which has many of the features of Facebook, such as profile creation, 'recent activity' streams, 'feeds,' 'follow,' 'like,' 'reply,' 'share an update,' 'praise' and 'tag'. It was also more readily accessible and useable through mobile devices and a downloadable desktop application than the VLE and for all these reasons was felt to have greater potential for student engagement. At the same time, Yammer allowed the creation of an advertisement-free, private community that cut out the 'noise' from the wider world that is typically associated with Facebook and Twitter, keeping the focus on the course in hand and reducing distraction for students. The curriculum design, therefore, was informed by a series
of pragmatic decisions and practical constraints but was fundamentally based upon pedagogical decisions. A cornerstone of this approach to curriculum design was the notion of the course development as an iterative process, informed by the experiences of participants. This paper reviews some aspects of the first year of that process and outlines how the course team investigated and reviewed the social learning network in its first year of use as well as their plans for future iterations.

2 Methodology
In order to establish the response of participants to the new delivery model for the course, the course team undertook an interpretivist, action research study, utilising both qualitative and quantitative data. The main research question was: 'Does the social learning network employed on this occasion have a positive impact on student engagement and learning?' The lively, engaging, diverse, sometimes contentious, invariably supportive, occasionally and increasingly academic exchanges that we have seen on the site during the year seemed to provide, on the face of it, good evidence of this. A case study to divine whether this impression was well-founded was conducted, using action research as the basis of our methodology. Our conception of action research is based on: a participatory, democratic process concerned with developing practical knowledge in the pursuit of worthwhile human purposes … It seeks to bring together action and reflection, theory and practice, in participation with others, in the pursuit of practical solutions to issues of pressing concern to people, and more generally the flourishing of individual persons and their communities. (Reason and Bradbury, 2001, p 1).

Action and research are not conceived of as polar opposites but as 'inherently intertwined in real life [enabling] practical, effectual and transformational learning in action to take place' (Chandler and Torbert, 2003, p 134). However, a particular conception of practical knowledge was envisaged here, broadening it beyond the purely technicist, operational knowledge that enables achievement of mandated outcomes. Instead, the study aimed to develop a more emancipatory knowledge, that would develop the course team's capacity to enquire, to create, to quest for an understanding of their practice and its context in their own way and to decide which way to go and how to get there in future iterations. The overall aim was to develop really useful knowledge that will be acted upon during 2013-14 academic year and as part of this aim, the researchers have elicited the interest of some of the participating students to take part in future studies as co-researchers. Simply put, the study is seen as part of a developmentl action-reflection cycle, after that propounded by McNiff and Whitehead (2006, p 9) (Figure 2).

Two methods were used to gather data. Firstly, we administered a survey to the 72 students who made up the 2012-13 first year cohort. The questions were inspired by a combination of the main research question outlined above, the desire to measure our outcomes against our original aspirations for the course and our experiential hunches arising out of taking part in the social learning network during the academic year. It was evident, for example, that whilst the community was vibrant and engaging for many, the frequency and level of contribution was markedly different for different participants. Clear quantitative data that established what proportion of students were taking part, how they were doing so and why there were differing usage patterns was required to evaluate the potential benefits and encourage productive participation in the future. Some simple statistical analysis to establish patterns in the data and identify correlations was conducted. Clear themes and patterns emerged.
To shed further light on these themes, three focus groups were held. These involved between three and six participants and a protocol was used for consistency. The intention was that the focus groups allowed for a co-construction of meaning with opportunities for participants to articulate and make sense of what they heard collectively, through the interactions of the group (Wilkinson, 2004). Participants were presented with cards, each carrying a keyword that typified one of the themes that had arisen out of the survey responses. The keywords were; unequal, democratic, engaging, collaborative, academic, irrelevant and social. Students were asked to think about these themes in silence for 30 seconds in the context of their use of Yammer and then asked to discuss what struck them about the terms. Their feedback was then transcribed and arranged according to the same themes. The outcomes of this study are presented in the following section. They focus on the survey findings but make use of commentary to illustrate and add detail. As such, the study might broadly be described as a piece of qualitatively informed statistical research.

3 Outcomes

There were 64 respondents to the survey from a cohort of 72 students. 67% were female and 33% male. 66% lie in the age range of the 30-49 with 17% in the range 20-29 and 18% over 50. The focus of this analysis is on the ways in which site use correlates with perceived benefits. Students were asked how often they visit the site. The responses were very encouraging, being far in excess of VLE usage by similar groups of students on the Certificate in Education at the same University, where visit rate to a group blog averaged once per month. However, the results do indicate that the visit rate is highly variable. The mode, at 27% is to visit once a week but a significant percentage (13%) visit more than once a day; 'It's engaging for most people. It's addictive to read what's going on. I even have it on my phone.' (Student D). At the other end of the spectrum, 13% reported never visiting the site. To shed light on the potential reasons for this variability, students were asked about their motivation, technical knowledge and confidence when using Yammer.

Only 6% of responses indicated technical barriers of not knowing how to find or use the site. All students were invited to the site by email in the first week and follow up invites were sent to those who hadn't joined in the weeks that followed. There is a 24 hour IT Support helpline and emails were periodically sent out offering support to any experiencing difficulties. 64% of those who knew how to find the site were confident about taking part:

And sometimes if you find something that's really good, people will put that on there, "Well, have a look at this, it might be relevant." So in that way it feels really collaborative. It's like "I've done quite a lot of work and found this but actually I'd be quite happy to share it, if it's of use to you as well." (Student A)

However, 15% of responses saw no need for Yammer and a significant proportion (27%) whilst they knew how to find and use the site, were not confident about taking part:

I haven't done anything academic for a long time so I don't have the confidence to think that what I'm thinking will hit the mark and when you read something that others post, whether they're rubbish or not, they're written in such a way that you think, "Oh, they know what they're talking about. I better not expose myself by saying something stupid." (Student A)

The course needs to address feelings of a lack of confidence and insecurity. The tutors need to draw people into conservations on Yammer. (Student B)

Conversely, others saw relatively unacademic contributions as unproblematic or potentially useful:

I think there are still people who are quite happy to go on and just ask an ordinary question or say, "Oh, I found this the other day, have a look at it," and they don't need to say anything else about it. It might be useful then. I know I've picked bits up that I have then ended up using in my module so it's useful in that way. (Student A)
This multifaceted response is borne out by the kinds of interactions that are apparent on the site. These range from prosaic questions about deadlines and day-school dates to light-hearted exchanges and supportive messages about the pressures of study, to relatively challenging academic posts that endeavour to prompt deeper thought and critical engagement.

Students were also asked about their perceptions of Yammer as a ‘community of discovery’ (Coffield and Williamson, 2011, p 49). (Figure 3).

The majority agree that on Yammer, educators and students are partners in learning and learn from one another and that learning is the central organising principle. Most feel that it provides intellectual space to improve through participation and that the learning is collaborative and dialogic. Most also feel that it is an expansive environment run on educational principles. Students are more equivocal with regard to whether the environment encourages principled dissent, allows individual enhancement, is inclusive and equal and is a thriving hub. The general concerns about equality, inclusivity and power in the environment were also reflected in comments from the Focus Groups:

I think some people swamp it ... I'll sit and I'll watch and I'll keep quiet and I'll put my opinion forward if I absolutely have to. But to go on there and become quite opinionated ...is not something I'd do, (Student G)

and conversely from a more vocal participant;

I don't feel Yammer has always been as collaborative as it could be and it's sometimes been limited and unequal as a tool. I don't think that I'm getting much back. I sometimes get things from conversations. It could be used better. (Student H)

In addition, students called for more face-to-face contact time at the beginning of the course to build trusting relationships with peers. The possibility of a two-day residential is currently being explored to support this request. On the basis of the findings of this study, the current blend of face-to-face and online provision is a good recipe but requires the seasoning that would be provided by knowing peers and feeling comfortable in their presence both online and in person.
The session at the beginning of the course was too quick, we didn't know each other very well and we didn't get the chance to know each other ... we had to get straight into performing which is why we didn't collaborate as much as we might have. (Student B)

Perceptions of the impact of Yammer on student achievement, however, reveal a very encouraging picture. Their responses show 54% reporting a positive impact, 46% no impact and zero students reporting a negative impact. Correlations between the visit rate and perception of impact were also identified. Unsurprisingly, 100% of those who never visit said that it had no impact on their achievement. Of those who do visit at least once a week, 66% said the impact on their achievement had been positive. The focus groups offered some explanations for the kinds of academic benefits that students perceived:

I like the fact that Yammer stayed academic, it answers lots of questions about the module. (Student C)
Yammer allows me to see how other people put things down; it gives a wider scope and alternative points of view. (Student B)
What I've seen has made me "up my game" and to realise that I can be on the same playing field as them. It made me think more about what I can do. (Student C)
In addition to asking about direct impact on achievements on the course, students were also asked about other benefits that they think accrue from particular aspects of the Yammer experience. Correlations were then sought between these more general benefits and the students' perceptions of direct impact on achievement. Interestingly, 56% of those who said there had been no direct impact on their achievement, nonetheless felt there had been some other benefit, arising out of reading the views of others, being able to ask questions or gaining emotional or peer support. Examples of these more general benefits cited in focus groups include:

I think it is social; some people do get a lot out of it. You can see friendships forming; you know people do chat to each other and things. I don't know, I think it's engaging and social, even though I'm just a lurker. That's fascinating. (Student G)
It is engaging talking to peers and I think that you would struggle on a blended learning course without it. (Student B)
I have found Yammer dead motivating; the [weekly email] digest motivated me because I see what other people do. (Student D)
Eight percent perceived no benefit and thought the site irrelevant to their studies:

Some people might find it useful but for me personally, it's not of any use at all. So it just seems sometimes all these toys and things are really nice but at the end of the day if it doesn't fit, then you've got to find a more traditional place, perhaps. (Student, Student E)

In total, however, 81% of all responses about the potential value of Yammer reported some benefit, either as a direct impact on achievement or of a more general nature.

I thought that Yammer was irrelevant at the beginning, which is probably why I didn't use it. But I do now. (Student F)
Students were also asked about the frequency with which they contribute to the site. As with visit frequency, their responses showed a divergent pattern. The mode (29%) contributes occasionally but a similar number (26%) prefer to 'lurk,' reading the views of others but never contributing:

[I think it is] social because I think I'm a lurker. I don't post anything. I lurk every couple of days. I do lurk. I find it interesting ... engaging. (Student G)

Significant numbers again appear at either end of the spectrum, with 15% contributing frequently and 13% who never contribute because they don't visit. In addition, 18% report
that they 'lurk' but are prepared to contribute on rare occasions. These responses were again cross-tabulated with the perceived benefits of Yammer (Figure 4). This shows that in general, the more frequently the student contributes, the more likely they are to perceive Yammer as beneficial. It may be that real benefits accrue, resulting in this positive perception, or that a positive perception triggers participation, or a combination of the two. Again, unsurprisingly, of those who said that they don't interact with Yammer in any way, 100% perceive no direct impact on their achievement. However, what is surprising is that of these, 88% said they perceive a benefit of some kind associated with using Yammer. This may be an anomalous result due to lack of attention to the precise wording of the questions on the survey but it may indicate that even those students who don't use Yammer feel that some benefits would accrue should they begin to do so.

4 Discussion
A key aspect of the findings outlined above that demands attention is the perception of students with regard to power and inequality in the network. The affordance for anyone to create an utterance of any length at any time on any topic holds the promise of an entirely democratic medium but it is interesting to note that it was not perceived as such by the participants. Fluency, scholarship, confidence, frequency of contribution and forthrightness were seen as markers of power and as precluding contribution from those students who felt themselves to be deficient in any of those areas. This left the more reticent feeling somewhat disempowered and the more vocal sometimes feeling that they were not getting much back. Despite the fact that participation is not limited by the space and time constraints of the classroom, it was nonetheless seen as a finite resource, with reference made to students 'swamping' or 'monopolising' the network and a call for tutors to moderate discussion. This might have been predicted by the course team and the effects ameliorated through more careful and detailed induction into use of the site and encouragement of any and all types of interaction. In particular, Bourdieu's (1985) field theory is of use here. The social learning network can be seen as a field into which students carry varying amounts of economic, social and cultural capital, which is then evaluated within the field to accord them what they and others take to be their legitimate status within that field. Left to unfold organically, this might polarise the group into speakers and non-speakers. Whilst lurking is a legitimate learning activity (Bishop, 2007), interaction holds out the promise of further development of some of the key outcomes of the course and more support might be given to encourage all to feel able to contribute.

In order to encourage a more inclusive environment and in answer to the call from students for tutors to take a more active, supportive role, the curriculum will be adapted for the 2013-14 academic year. Tutors across the network will be encouraged and supported to participate more. In each year of the course, there is a reflective module, which provides the opportunity to incorporate some staged levels of contribution to the social network, with students given a framework for participation. This could begin with reading the site on a regular basis, moving on to 'tagging' posts that are of interest, 'liking' the posts that they rate
most highly, commenting or replying to another user, posting an update or question about their own progress on the course, sharing a recommended resource such as a website or journal article, collaborating with peers in the creation of a shared resource and culminating in the student taking a lead role in a collaborative initiative. Students could then be encouraged to set goals on this continuum that suit their own aspirations for use of the site and to reflect on and ask for support or help in reaching those goals if needed, cognisant of some of the benefits that might accrue should they chose to contribute.

5 Conclusion
In summary, the outcomes of the study illustrate that the initial positive impressions of the impact of the social learning network were broadly accurate. It has provided a vibrant and engaging online learning experience for a significant proportion of the students on the course and many have perceived this as beneficial. Our initial metaphor of the site as a kind of ‘coffee room’ is evocative of what we observed, with people dropping in, some often, some occasionally and some never; engaging in chat or listening in silence to others; sharing resources and formulating ideas; asking questions and giving each other support. The metaphor is also helpful in evaluating the implications of our findings for future iterations, in that physical spaces in educational settings such as common rooms and even classrooms, are similarly used in different ways by different participants, depending upon their needs and dispositions. The degree to which the course team needs to problematise those varying levels of participation is, therefore, arguable. The students on the course are encouraged to see their degree as a personal learning journey and so it is, perhaps a healthy aspect of the course that it enables students to make their own choices about whether or not to participate. This paper, we hope, facilitates more informed choices, because it equips students with the wider picture of how others see the social learning network and its attendant challenges and benefits. It is also hoped that some of the strategies adopted here have wider applicability that will help valuable provision to survive and flourish in an age of austerity.

5 References


Coffield, F (2008) Just suppose teaching and learning became the first priority… London: Learning and Skills Network


Ratcliffe, R (2012) University applications from UK students down 8.4%: Ucas figures 'should set alarm bells ringing in government,' says thinktank available at http://www.guardStudent H.co.uk/education/2012/nov/28/university-applications-uk-students-down-ucas (last accessed 3rd April 2013)


Sweet, R (1986) Applying Tinto's model of student dropout to distance education, Distance Education 7 (2) pp 201-213


Social Learning Space: supporting students articulating from FE to HE by utilising social media technology

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ABSTRACT: The traditional mode of e-learning in Higher Education focused on an e-publishing model whereby text based learning materials were simply made available to students electronically. However developments in web technology, such as Social Media, are driving a trend towards providing e-learning resources to facilitate collaboration and to foster a sense of academic community. The Social Learning Space (SLS) is an innovative project which makes use of Social Media technology to support students articulating from Further Education colleges to Higher Education. The SLS project aims to create computer based resources which promote collaboration, reflection and social learning. The project is situated in the School of Engineering, Computing and Applied Mathematics in the University of Abertay Dundee, and is funded by the Tayside and Fife Articulation Fund.

The focus of the SLS project has been to support articulating students by developing a number of social media based 'apps' and by utilising the social networking platform Facebook. The Social Media apps developed during the project can be viewed from http://www.facebook.com/SLSAbertay. The project aims and outputs were evaluated by means of student questionnaires, interviews and by computer logged data concerning the use of the software. The results indicated that most of the SLS apps were found to be useful when leveraged in a class room setting, however perhaps the most significant finding was that the resource known as the 'Facebook group app' was the most highly valued.

The 'Facebook group app' is based upon the Facebook groups facility which is a discussion forum accessed via the Facebook platform. The SLS Facebook groups were available to students either by using the traditional Facebook interface, or via 'Facebook group app' which was built to provide a novel interface and extra functionality, in the form of 'social tools' to the standard Facebook group. The 'social tools' function enabled students to manipulate the group listing by users and/or messages rather than merely chronological order. The users of the app included students in Further Education colleges as well as those recently articulated to Higher Education. The recommendations from this study are that Facebook groups can provide a useful means of promoting academic outcomes, and that tutor input to the group is important. However it is also recommended that there is a policy for protecting student privacy by restricting academic activities to the group and allowing students a clear demarcation line between the group and their user profiles. Perhaps the most significant finding in terms of the project goals was that students articulating from FE colleges found the 'Facebook group app' to be effective in assisting them in increasing their social capital and in experiencing a greater sense of academic community.

1 Introduction
Several studies have found that social learning forms an important part of the support systems necessary for successful study at Higher Education level. Gutteridge in (2001) found that reasons for non progression included social isolation and anxiety. In addition research has suggested that the more students interact with other students and staff, the more likely they are to persist (Tinto 1997). In a study, focused upon discussion forums, it was found that the software enabled some students to experience a sense of academic community (Dawson 2008). The Social Learning Space project is focused on utilising social networking software in order to increase social capital and to foster academic community.

1.1. Social Networks
Boyd & Ellison (2004) define a Social Network (SN) as a service that allows people to construct a public or semi-public profile in order to expose it to an articulated list of friends or anyone else who also has a profile. SNs allow users to create personal profiles, and to make connections with individuals that they might otherwise not have been able to make. This is
largely due to the public display of connections that each person has and also because SNs provide a mechanism for users to leave messages on friends’ profiles (Cloete, de Villiers & Roodt 2009). The functionality of SNs therefore provides an opportunity to support or to replace a real world social network of people.

Another study has shown that over 85% of students surveyed reported using one or more SN. Furthermore, the proportion of students who used SNs on a daily basis grew from approximately one third in 2006 to almost two thirds in 2008, (Ellison, 2008). This finding suggests dramatic growth in the years 2006-2008 and more recent trends suggest continued growth. These findings indicate that SN usage amongst students has increased dramatically. Intriguingly the study also indicated that almost half of the students surveyed have integrated SNs into their academic life. The main method of integration is reported as being a means of communicating with fellow students about course related topics. Only 5.5% indicated that their academic use of SNs extended to communication with academic staff (Ellison 2008).

1.2. Facebook

Facebook is the leading SN site for University students, with studies indicating that somewhere between 85%-99% of students use the site, (Ellison, 2008; Hargittai 2008a; Jones & Fox 2009; Matney & Borland 2009). Facebook has grown at a considerable speed over the last few years, (Jones & Fox 2009; Matney & Borland 2009; Smith & Caruso 2010), and therefore there has been a similar growth in academic interest in the potential SNs have for enhancing the student experience, (Abramson 2011; Beer 2008; Eberhardt 2007; Junco 2011; Kamenetz 2011).

1.2.1 Facebook Advantages & Disadvantages

A recurring concern in using Facebook, and other SNs, raised by students is the ability for lecturers to view their profile, which they feared may have a negative impact (Cloete, de Villiers & Roodt 2009; Maranto & Barton, 2010). For example Jones, Blackey, Fitzgibbon and Chew (2009) carried out a study on four separate universities to explore student perception of using SNs to aid their studies. They found that students preferred to keep their social life separate from their academic life. Jones et al argued that in order to combine SNs with education, there is a need to find an appropriate demarcation. Roblyer, McDaniel, Webb, Herman, and Witty (2010) carried out two studies and concluded that “only” 15% of students reported having privacy concerns about University staff. In examining this evidence it is worth emphasising that 15% is not a small percentage when considering the sensitivities in question. There seems little doubt that privacy concerns regarding the use of SN sites such as Facebook are growing, and it is therefore important that Universities proceed with caution.

There is evidence of potential benefits of using Facebook in an academic context for example by increasing students’ digital literacy skills. In addition to this the fact that SN sites are an established part of student daily routine means that there is the potential to increase academic participation by using SNs (Ellison 2007). Other potential benefits include increased interactive and self-presentation (social presence) capabilities as compared to most virtual learning environments. It has been argued that SN sites promote student reflection, which may lead to more considered contributions from students, which may in turn increase student motivation (Griffith, S. & Liyanage, L. 2008). Further it has been stated that there is a positive co-relation between Facebook usage and the creation and maintenance of social capital, which has been defined as “the resource accumulated through the relationships among people” (Ellison, Steinfield, & Lampe 2007). In addition to this, in an update to the previous study, it was found by Ellison, Steinfield, and Lampe (2011) that using Facebook to learn more about people that the user knows in the real world was related to increased social capital. However it was also found that using Facebook to meet strangers whom the user did not know in the real world was not related to increases in social capital.

1.2.2. Academic use of Facebook

There are a number of examples of the academic use of Facebook, for example as described in Selwyn (2007). In this study it was found that educationally related material accounted for a relatively small fraction of the total amount of posts. When students did use
Facebook for educationally related purposes, it was usually aimed at practical information such as finding out when and where lectures were being held and when assessments were due in. However the Selwyn study was passive in terms of the fact that there was no direct input from tutors to Facebook, and, unlike the SLS project, no customised software. Several attempts have been made to use Facebook as an educational tool for content delivery and student collaboration. One such example is that of Griffith & Liyanage (2008), which details research on the educational benefits of Facebook Groups, a resource made use of in the SLS project. The Griffith & Liyanage study found that the students had a good perception of Facebook and preferred its use for education to traditional methods. One interesting observation in this study was that the amount of student activity within the group dwarfed that of the lecturer activity. However it was also observed that students "became more participant when instructors acted as moderators" indicating that some lecturer activity was required.

There are examples of the use a Facebook Group as a vehicle for course updates and announcements (Fontana, 2010). It was found that students were using the groups to ask course related questions and collaborate with fellow students, including posting images of their artwork and allowing others to provide feedback. The study found that students made more of an effort to check the Facebook Groups compared to the university's system and it appeared that students felt less embarrassed about asking course related questions on Facebook compared to in class. Overall it was found that students were more comfortable using technology that they were familiar with, as opposed to the university's system. Much of the debate concerning the use of Facebook in an academic setting considers correlations as analysed from survey data. For example Heiberger & Harper (2008) found that time spent on Facebook is related to real-world involvement on campus. In addition Tufekci (2008) found that users of social networking websites had more real-world contact with friends than non-users. Further it was found that creating events was a significant positive predictor of both engagement and involvement in campus activities (Kuh, 2009). However Junko(2011) in a large scale survey based study found that checking Facebook were negatively predictive of engagement score. On the other hand it has been stated that commenting on content (Junko, 2011) was positively predictive of high engagement scores. In summary there is evidence that Facebook, including Facebook groups, can be used effectively in an academic setting. However there is evidence that students have privacy concerns about intrusion into their social use of Facebook. The SLS project endeavours to harness the potential Facebook has for enhancing social capital and to maintain a line of demarcation between student's private and academic use of the software.

3. Methods
The social learning space project was setup in the autumn of 2010 with funding from the Tayside and Fife Articulation hub. The project involved the design and development of a range of web based applications such as: a web app named 'Coming from college' which leverage cognate domain specific resources, 'SLS board' which is a messaging system making use of a post-it metaphor, 'peer quiz' a collaborative quiz making tool, 'Graduate attributes wizard' intended to support an employability related task, 'Access2 programming' a domain specific e-learning resource and 'Facebook Group App' which is the most social of the apps and is built on the Facebook Application Programming Interface(API).

The focus of this research is into the effectiveness of the 'Facebook Group App'. The software is a browser based application built upon the Facebook API. In practice this means that the app can be accessed from any device which is internet connected with a browser. The app makes available to the user the Facebook groups to which they are subscribed. The interface has a mobile friendly version of Facebook groups and in addition provides 'social tools'. The messages when viewed through Facebook without the app are listed in chronological order with the most recent post at the top. The 'social tools' feature enables users to list by a particular user, by the most commented upon, the most liked and in reverse order.
This research was focused upon evaluating the usefulness of the Facebook Groups App and was conducted using interviews, surveys and analysis of data obtained from the Facebook API. All the participants are articulating students, unless otherwise specified.

The interviews were conducted with eight students each over a period of 15-20 minutes. The students were recruited directly as articulating students and remunerated with a gift of £10.00 of Amazon gift vouchers. The interview discussion topics included Facebook usage, Facebook groups, VLEs and the Facebook Groups App.

The survey was conducted with twenty nine students who were self-selecting from an email based recruitment process with a prize of two £20.00 Amazon gift vouchers. The survey was hosted on Google Drive. The survey was tested for reliability and found to have an alpha level of .77, (Chronbach, 1951). The results from two of the questions concerning university engagement and participation with the app were analysed for correlation using the Pearson Correlation Coefficient (Soper 2013).

An analysis of computer logged data from the Facebook Group using the API was carried out. The data under examination is made up of a message poster's name and the commenter's name, if the message had comments. The data takes the form of a social graph and was analysed in nodeXL (Hansen, Shneiderman & Smith 2010). The total number of students was 79 (made up of all students in a programme), including 8 articulating students and the programme tutor. The data was examined using Social Network Analysis. The first metric used was degree which measure how many comments, if any, a student's post received. The second metric was betweenness which measures shortest paths across the graph and is, in essence measuring connectedness. The third and final measure was eigenvector centrality which measures ‘popularity’ by assigning degree scores and then recalculating based upon the scores of those commenting upon a post. Therefore if ones post is commented upon by someone who has posted and received a lot of comments, then ones score would increase in comparison to being commented by a less popular poster, (Wasserman & Faust 1994). The SNA scores were calculated both before and after using the Facebook Groups App. The two sets of scores were compared using a Mann-Whitney U-test (Siegel 1956).

4. Results

4.1 Interview Results

The results from the interview with eight articulating students include the finding that all students used FaceBook at least daily or more, and that they checked FaceBook more often that email. When students were asked about the use of Facebook Group App as compared to a Virtual Learning Environment (VLE) two students stated that they would prefer to use Facebook rather than the VLE even for content delivery. All eight students said that Facebook Group App was preferable to the VLE for communication. Student's responses to questioning about privacy suggested that they preferred to use a group specific to their course of study rather than to mix private use of the software with academic use. Students commented that using the Facebook Groups app added to their experience of study and made integrating with the existing cohort easier. It was also found that when asked about all of the apps created by the SLS project students most valued the ‘Facebook group app’.

4.2 Survey Results

Students who were using the FB group app were asked questions using a Likert scale of five points. The results are summarised in table 1.

<table>
<thead>
<tr>
<th>Question Topic</th>
<th>Num of students</th>
<th>Agree and strongly agree %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic community</td>
<td>21</td>
<td>72%</td>
</tr>
<tr>
<td>Specific answers to questions</td>
<td>16</td>
<td>55%</td>
</tr>
<tr>
<td>General subject knowledge</td>
<td>19</td>
<td>66%</td>
</tr>
<tr>
<td>Tutor participation</td>
<td>22</td>
<td>76%</td>
</tr>
<tr>
<td>More likely to participate</td>
<td>8</td>
<td>28%</td>
</tr>
</tbody>
</table>

*Table 1 Survey summary results*
The results shown in the table show particularly high positive scores for the academic community and tutor participation questions. Students were also asked questions to rate their engagement at University and participation in using the FB group app. The scores for these two questions were scaled high to low and a correlation coefficient of 0.70 for 29 subjects was found to be significant for two-tailed p-value 0.00002371. Students were also asked how many (if any) friends they had gained due to articulating to the University. The mean score was 30.26. In addition students were asked how many (if any) friends they had gained as a result of using the Facebook group app, and the mean score was 36.19.

4.2 Computer Logged Results
Social Network Analysis (SNA) was carried out to determine what, if any, unusual interaction characteristics the tutor had as a member of the group. In this case the group is made up of all members of a programme group including articulating students. It was found that the tutor had the largest score for betweenness (a connectedness metric) as illustrated in Figure 1 where circle size represents size of the score. The tutor is depicted in the top right hand corner of the social graph diagram.

![Social graph showing betweenness scores](http://example.com)

Figure 1 Social graph showing betweenness scores

Social Network Analysis of the interaction patterns of the group of eight articulating students who were interviewed was also carried out. The usage relates to a before condition of using the Facebook group through the Facebook interface and an after condition of using the Facebook group via the app. The results are shown in table 2.

<table>
<thead>
<tr>
<th>Student</th>
<th>Degree Before</th>
<th>Degree After</th>
<th>Between Before</th>
<th>Between After</th>
<th>Eigenvector Before</th>
<th>Eigenvector After</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>3</td>
<td>5</td>
<td>18.25</td>
<td>66.390</td>
<td>0.023</td>
<td>0.053</td>
</tr>
<tr>
<td>2</td>
<td>7</td>
<td>11</td>
<td>96.88</td>
<td>210.694</td>
<td>0.052</td>
<td>0.064</td>
</tr>
<tr>
<td>3</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0.016</td>
<td>0.006</td>
</tr>
<tr>
<td>4</td>
<td>5</td>
<td>13</td>
<td>8.194</td>
<td>197.452</td>
<td>0.026</td>
<td>0.092</td>
</tr>
<tr>
<td>5</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0.018</td>
<td>0.006</td>
</tr>
<tr>
<td>6</td>
<td>6</td>
<td>3</td>
<td>13.054</td>
<td>44.345</td>
<td>0.042</td>
<td>0.033</td>
</tr>
<tr>
<td>7</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0.016</td>
<td>0.018</td>
</tr>
<tr>
<td>8</td>
<td>2</td>
<td>5</td>
<td>0</td>
<td>8.194</td>
<td>0.034</td>
<td>0.026</td>
</tr>
</tbody>
</table>

Table 2 SNA score before and after using the FB App

A statistical analysis of the data was carried out using a Mann-Whitney u-test. The results of the statistical analysis found that the changes in degree (a number of posts metric) before and after were significant at 5% (P = 0.05) with a critical value of u=19. It was also found that changes in the Betweenness score before and after were significant at 5% (P = 0.05) with
critical value $u=12$. Finally it was found that the change in eigenvector centrality values (a popularity metric) before and after was not significant.

6. Discussion
The purpose of the Social Learning Space project is to support students articulating from Further Education to Higher Education using social networking software. One aspect of the project was the development of an app intended to add 'social tools' to Facebook groups. In recent years there have been many studies into the deployment of public social networking tools into academic settings; however this project is innovative because it involved the creation of customised software. The next step in the project was to analyse what if any positive effects came about as a result of students using the app.

6.1 Facebook Usage
Because social networks such as Facebook are extremely popular with students it is though that the software has tremendous potential in education, (Ellison 2008). The findings from the SLS suggest that students use Facebook daily and check for updates more often than they check for new email. There are even indications in some reported studies that students 'prefer' Facebook to university Virtual Learning Environments (VLE) (Griffith & Liyanage. 2008; Fontana 2010). However posting Facebook and VLEs as options in a de-contextualised manner has suspect logic which may lead to misleading responses from students. The interview findings in this study indicated that students prefer Facebook as a means of communicating with others but not as a replacement for a VLE.

6.2 Students Participation
Selwyn (2007) reported that student participation in Facebook was high but that only a small proportion of the communication was academic. However the SLS project involved the creation of a Facebook group specifically for a single university programme, and in addition customised the function with an app. Unsurprisingly the results in the SLS project were different from those in the Selwyn study, with the vast majority of the posts being academically related and with high levels of student participation. The SLS results are broadly in keeping with findings in other studies such as Griffith. & Liyanage (2008) and Fontana A (2010).

6.3 Tutor participation
The role of the tutor in contributing to and nurturing the discussions on Facebook groups was described in Griffith & Liyange (2008). The findings in the Griffith & Liyange study were that the tutor did not contribute a great deal in terms of the volume of postings but that those contributions were valuable in terms of the group dynamics. In other words the result was that tutor input encouraged student input. There was a similar finding in the SLS study, with over seventy percent of students reporting that they valued the tutor input. The SLS study offers a further insight in terms of why tutor input might be regarded as useful. The results of the SNA study into tutor participation showed that the tutor had the highest betweenness score in the group. The betweenness score is a measure of connectedness. In the group as a whole there was a tendency to comment on the posts of friends, which is natural enough and is in fact an emerging property of social groups (Wasserman & Faust K 1994). The tutor's relatively high betweenness score indicates that the tutor is performing a role of connecting the social graph and perhaps that is why the tutors are of value to the group. It is possible that this is a factor in other studies that have found tutor input to be valued in Facebook groups. On the other hand it is important to recognise the fact that tutors can provide answers to crucial academic questions and that service might also be a contributing factor to their value in the group.

6.4 Issues
As well as there being a number of potentially useful outcomes from adopting social networking software such as Facebook, there are of course a range of challenges and potential problems. One of the most contentious issues associated with Social Networks has been privacy. A number of studies have found that significant minority of students have concerns about the academic usefulness of Facebook due to the potential for privacy intrusions from tutors and faculty more generally. In this study students did not report privacy as a concern, but this might well be due to the fact that the respondents where computing
students who hopefully have a better than average understanding of how to control privacy in their own accounts.

6.5 Data mining

The use of surveys in the literature appears to be a primary research method for examining the usefulness of social network software. The usefulness of surveys in this area is self-evident and has been used in the SLS study. However self-reporting data does not necessarily give a complete picture of user interactions. The SLS study in addition to a survey also involved the use of SNA techniques to mine the computer logged data. It was found that students increased the amount of posting after using the app and in addition increased their betweeness scores. The result is interesting as it suggests that articulating students may be gaining more social contacts during a period of using the Facebook Groups App. However it is worth noting that in the absence of a control group element to the study there is no way to exclude the possibility that the result would have been found had the non app Facebook interface been used. However despite this caveat to the finding of this study there does appear to have been an increase in the social capital of the articulating students.

7. Conclusions

The results of the SLS project suggest that Facebook groups can be recommended as a means of fostering academic objectives, and that tutor input to the group is important. However it is also recommended that there is a policy for protecting student privacy by restricting academic activities to the group and allowing students a clear demarcation line between the group and their user profiles. Perhaps the most significant finding in terms of the project goals was that students articulating from FE colleges found the "Facebook group app' assisted them in increasing their social capital and in experiencing a greater sense of academic community.

In conclusion it is suggested that faculty in both Higher and Further education have an opportunity to support articulating students using Facebook, and other social networks, in ways that enhance student social capital, facilitate engagement and by extension improve their overall academic experience. Given the current level of popularity that Facebook enjoys, it is important for educators to gain a working understanding of the academic potential and limitations, in order to meet students where they are and to help them get to where they want to be.

References


Matney, M., & Borland, K. (2009). Facebook, blogs, tweets: How staff and units can use social networking to enhance student learning. In Presentation at the annual meeting of the National Association for Student Personnel Administrators, Seattle, WA.


Selwyn, N. (2007) "Screw Blackboard… do it on Facebook!" An investigation of students' educational use of Facebook" Poke 1.0 - Facebook social research symposium.


Mindfulness in Higher Education: It's a Win-Win Situation

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'The faculty of voluntarily bringing back a wandering attention, over and over again, is the very root of judgement, character, and will. No one is *compos sui* [master of himself] if he have it not. An education which should improve this faculty would be *the* education *par excellence*. But it is easier to define this ideal than to give practical directions for bringing it about' (James, 1890, vol. 2, p. 424, original italics).

**ABSTRACT:** Mindfulness is a way of being, which involves two key components. The first is self-regulated attention focusing on the present moment. The second is the attitude towards present moment experience, characterised by a sense of openness, acceptance and curiosity. There are a variety of mindfulness based approaches which seek to help individuals become more mindful. There is a growing body of literature which suggests that mindfulness training provides a number of benefits for a wide range of populations. Mindfulness training for university students is gaining international interest, with research into the benefits being conducted in the USA, UK, Australia, and Singapore. This paper will use the existing literature and the author's own doctoral research to introduce some of the benefits of mindfulness training for university students.

1 Mindfulness: A very short introduction

Psychologists have defined mindfulness as self-regulated attention which is focused on the present moment while maintaining an open curiosity and acceptance of one's experience (Bishop et al., 2004) so from this perspective, we are all naturally more or less mindful. Mindfulness training aims to help individuals become more focused in the present moment, more open to new experiences and more accepting of where we find ourselves. In mindfulness meditation one chooses an anchor for one's attention. For example, in the sitting meditation, this would be the breath. When the mind drifts off, as it invariably does, the first key moment is becoming aware that the mind has drifted off. So rather than being anchored to the breath, one's attention may be anywhere in the past, present or future. When people start practising mindfulness many see this as failure, or as a sign that they can't meditate. However, nothing could be further from the truth. Rather than failure, noticing that one's mind has wandered provides the opportunity for acceptance and compassion, and the chance to choose to let go of those thoughts or feelings and bring the attention back to the breath, back to the anchor. This does not mean 'pushing away' thoughts, or trying to 'have an empty mind', but rather to bring the mind back gently when it has wandered. Over time, the mind will wander less and the individual will notice the mind has wandered more quickly (Bishop et al., 2004).

It is understandable that mindfulness, and mindfulness training, may seem like 'just another fad', but when one takes a closer look it soon becomes clear that there is substance beneath the snappy headlines. For a start, mindfulness, while only becoming popular in the West in the last 20 years, has been practised by Buddhists for over 2500 years. Back in the late 1970s Jon Kabat-Zinn and his colleagues at the University of Massachusetts developed and implemented a training programme to help patients manage chronic pain, which has come to be known as mindfulness-based stress reduction (MBSR), (Kabat-Zinn, 1982). MBSR is an 8-week group programme, with anywhere between 10-30 people meeting every week for around 2 hours to practise mindfulness meditation, explore how it can help them manage stress and reflect on how it can be brought into their daily lives. Regular practice is also a key part of the programme (Kabat-Zinn, 1990). There are now hundreds of published empirical studies suggesting that MBSR can lead to significant reductions in stress, anxiety.
and depression in clinical and healthy populations (Grossman et al., 2004; Fjorback et al., 2011).

In addition to being a useful programme in and of itself, MBSR has also become a template programme for more tailored mindfulness programmes (McCown, Reibel & Micozzi, 2010). The most well-known of these is the Mindfulness-Based Cognitive Therapy programme (MBCT) (Segal, Williams & Teasdale, 2002) which has been found to help prevent depressive episodes (Ma & Teasdale, 2004). The success of MBCT has led to it being widely implemented in the British National Health System. It has also been used for a variety of populations and has an ever growing evidence base (Fjorback et al., 2011; Grossman et al., 2004). While MBCT is the most well known offshoot of MBSR, there are many others, such as the mindfulness-based eating programme (MB-EAT), developed by Jean Kristeller (1999). Most of these programmes follow the MBSR format but vary the didactic elements and length of the meditations and individual sessions (McCown, Reibel & Micozzi, 2010). As part of my PhD, I developed mindfulness-based coping with university life (MBCUL) to explore the benefits of a tailored mindfulness programme for university students.

2 Stress reduction

Recent evidence suggests that not only are a large number of students experiencing clinical levels of stress, anxiety and depression, but that this appears to be directly linked with becoming a student (Andrews & Wilding, 2004; Bewick et al., 2010). Students appear to experience more mental health issues than their non-university attending peers (Royal College of Psychiatrists, 2003), while at the same time, many do not seek any sort of support (Blanco et al., 2008). MBCUL was developed as a supportive programme which might help students cope better with the stress of university life (Lynch et al., 2011). It follows the 8-week MBSR format.\(^\text{15}\) The first two weeks introduce students to mindfulness meditation and help them to establish their own practice. Week three focuses on mindful art and play, which introduces students to the idea that they can bring mindful awareness to any activity. Weeks four to seven focus on student-specific issues: stress at university, academic issues, managing their own health and communication and relationships. Week eight serves as a reflection on what has been discovered and how students can take things forward. Between weeks seven and eight there is a half day mini retreat. MBCUL was designed to serve as a template programme which could be used by educators with at least two years of personal experience in mindfulness meditation or those with an existing mindfulness teacher training qualification.

The MBCUL programme was evaluated between 2007 -2010 at the University of Northampton (UK). Attendance was optional and MBCUL was advertised to students on university computer screens, posters around campus and a few informal talks. Over a period of three years a general picture of who was attracted to MBCUL emerged. Generally, participants were female, experiencing mild to moderate stress and anxiety and in their mid 20s. There were four key reasons students gave for attending:

Final year stress
Coming with friends
Hope to meet new people
Curiosity

When compared to wait-list controls, those students who came to MBCUL showed significant reductions in measures of perceived stress and anxiety. What is particularly noteworthy is that while there were significant decreases in scores of stress and anxiety in those attending MBCUL, the scores of those in the control groups were actually increasing.

\(^{15}\) Full details of the MBCUL programme are available free as an online supplement.
This is in keeping with other research which suggests mindfulness training is a useful way to help students manage stress (Regehr, Glancy & Pitts, 2013).

3 Beyond stress reduction

While it is well accepted that mindfulness training can lead to reductions in stress, mindfulness training may also lead to more academically focused changes. Looking at Bishop et al.'s (2004) operational definition of mindfulness, where mindfulness is described as self-regulated attention which is focused on the present moment while maintaining an open curiosity and acceptance of one's experience, it is easy to argue that mindfulness training may be just the education par excellence that William James sought over a hundred years ago.

There is evidence that brief mindfulness training may lead to changes in how students approach reading and their reading comprehension. A recent study randomised of a brief 2 week mindfulness training programme randomised students to either the mindfulness group or a control group. Measures were taken before and after the training programmes. Pre-test scores on the Graduate Record Examinations (GRE) were comparable between the two groups at time one and were in keeping with participants' pre-university Scholastic Aptitude Test (SAT) scores. However, after the training those who attended mindfulness training demonstrated significant improvements. This improvement was mediated by a reduction in mind wandering. Given that GRE scores are thought to be reasonably 'fixed', the finding that mindfulness training appears to be able to impact them is quite remarkable (Mrazek, Franklin, Phillips, Baird & Schooler, 2013) These results also fit with qualitative data (Lynch 2011), in which university students who attended an 8-week MBCUL programme felt that they were able to pay more focused attention to what they were reading or listening to in lectures. There is initial evidence which suggests mindfulness training may lead to improved memory in university students. In addition to exploring reading comprehension, Mrazek et al. (2013) found changes in measures of working memory, also thought to be reasonably stable, only in those who attended the mindfulness training.

Students may also become more aware of the way they approach and complete, academic tasks. For example, in the qualitative results of a wait-list controlled trial of MBCUL, students didn't just remember more, but many also reported changes in the way they approached their work. For example, many became aware that they needed to take breaks or plan their time more effectively (Lynch, 2011). These findings suggest that mindfulness training may lead students to pay greater attention to texts, change their approach to studying and possibly even remember more.

But the benefits of mindfulness training extend even further. There is a growing body of literature which suggests that mindfulness training leads to increased compassion, empathy and listening skills in professionals (Grepmair et al., 2007). It is easy to see how these skills may benefit students not just during their time at university, but may also help them in their future lives, both personally and professionally. Almost all the students who participated in a post MBCUL interview reported some change in the ways they communicated with others. The key way this manifested was by being aware when they were listening to someone properly and when they were just mindlessly nodding along but paying no real attention.

They realised that the other people knew they weren't really there and they could tell that the quality of their conversations changed when they were really present with them (Lynch, 2011). Following on from this, there are studies coming out which suggest that patients who are treated by clinicians or therapists who have undergone mindfulness training feel that they are listened to and are more satisfied with the support they receive (Grepmair et al., 2007).

4 Win-win

Mindfulness in Higher Education really is a win-win situation. Students win by learning to manage their stress and anxiety better, by developing better communication skills, and
possibly by improving their academic performance. It is also possible that students may have a better experience if staff experience mindfulness training, as they also learn to manage their stress better and develop greater compassion for themselves and their students. This may also benefit Higher Education institutions in terms of increased student satisfaction scores, less staff burnout and perhaps even greater academic success. While it is well established that mindfulness training will reduce stress, it has so much more to offer and, while not necessarily for everyone, may be just the education par excellence that James sought in the 19th century.

References


Mindfulness and retention: initial outcomes of a pilot project at Queen Margaret University, Scotland

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Abstract

This paper presents initial observations of a pilot that introduces mindfulness meditation into teaching and University life. Short meditations were offered at the start of Year 1 and 2 lectures, besides weekly drop-in sessions. The purpose was to enhance the student experience through the affective domain, identified by Thomas (2012) as a key factor in improving retention. Contemplative practices (CPs) consist of enhancing awareness of the 'here' and 'now', characterised by the foregrounding of 'being' and 'living', rather than 'doing' or 'knowing'. Thus, it could be argued that CPs have the potential to enhance the affective dimensions of the student experience and thus, indirectly, impact positively on retention. Students and staff perceived benefits that applied to learning and teaching specifically, but also to broader dimensions of their personal life. Overall there was enthusiasm from both students and staff for the innovation and a request to continue and expand current provision.

Figure 1: Tree of Contemplative Practices, courtesy of the Center for Contemplative Mind in Society

Introduction
"Mindfulness meditation is humanizing the higher education environment by teaching to the whole student rather than just concentrating on the cognitive." (Eric McCollum quoted in Anonymous 2013). Recent research on widening participation and retention (Thomas 2012) has indicated that up to 42% of students consider withdrawing from their course and that "interventions and approaches to improve student retention and success should as far as possible be embedded into the mainstream provision to ensure all students participate and benefit from them." (Thomas 2012, p.9). The underlying factors influencing students' decisions to continue or withdraw are complex, but students' social and academic integration are both thought to be important (e.g. Tinto 1993, in AIDossary 2008). Moreover, in Thomas' recent summary of 22 studies examining retention in HE in the UK, she emphasised how affective dimensions of the student experience were found to be of key significance across most projects. In other words, students' feelings about their study and about their experiences of HE are at least as important as their experiences of the cognitive dimensions of their courses.

Over the last 10 years, there has been a rapid increase in interest in the integration of Contemplative Practices (CPs) in HE to enhance learning and teaching (see Fig. 1 for an overview of such practices). Regular engagement with CPs enhances attention, information processing and academic achievement (Shapiro et al 2008). CPs seem to address specific cognitive dimensions as well as a general sense of well-being, thus to address both the affective and cognitive dimensions of the student experience. Additionally, CPs have (mental) health benefits (e.g. stress-reduction; Williams et al 2007, Kabat-Zin 2009). A recent meta-analysis of the psychological effects of meditation confirmed that meditation practices are more effective in enhancing a range of psychological variables than relaxation exercises by themselves (Sedlmeier et al 2012) and Ramsburg & Youmans (2013) showed that a short meditation before a lecture improved test scores, especially in first year students.

This paper reports on the initial observations emerging from the evaluation of a project that provided a range of opportunities for students and staff to engage with CPs, mostly using mindfulness approaches. Mindfulness is probably the best researched contemplative practice and has been implemented with great success in a variety of contexts (see for example London Transport example in Halliwell 2009 and case study in Anonymous 2012). The purpose of the project was to pilot an innovative, holistic approach to enhancing the experience of both students and staff and thereby indirectly improve retention. The purpose of this paper is to report on the self-reported experiences and perceptions of students and staff who engaged with the practices.

Methodology
2.1 Mindfulness Opportunities
The hard measures of student retention (e.g. percentages of student withdrawals) are unlikely to be affected in the short term by this intervention. Therefore, the project initially aims to make visible some aspects of its impact through a soft, qualitative approach, focusing on recording student and staff experiences of mindfulness. This is a small practice-focused project that seeks to pilot various ways of implementing contemplative practices into the experience of both student and staff at Queen Margaret University, with the underlying intention to help improve retention across the University. It does this by offering:
Generic classroom based contemplative practices led by academic staff and/or students as part of face to face classes (see Appendix 1 for a practice example).
Subject-embedded contemplative practices, led by academic staff and/or students as part of face to face classes or self-led groups
Generic drop-in lunchtime mindfulness sessions, led by an external accredited mindfulness practitioner
Generic drop-in lunchtime self-led contemplation sessions
Two presentations providing a background introduction to mindfulness and a short practice session
All, except (2) above were implemented in Semester 1, as follows:
One tutor introduced five-minute contemplative practice sessions at the start of each lecture. The first session was facilitated by the project coordinator. Subsequent sessions were led by the lecturer, who later on encouraged students to lead these sessions themselves, which they did from week 6. Initially, the contemplation sessions involved the whole class sitting in quietness, eyes closed (optional), with the awareness being guided towards being in the present moment, through focusing on the breath (see Appendix 2). Other approaches were also used by the lecturer and the students, such as body scan, visualisations and memory recall (going back over the day). The second lecturer started practicing mindfulness at the start of each focus session in a Masters module. These were not implemented yet, as this requires more in-depth engagement with the practices and integration with subject-specific content.
These were lunch-time drop-in mindfulness meditation sessions led by an external expert, lasting about 35 mins, with an opportunity for sharing experiences afterwards. These were lunch-time self-led drop-in sessions. If the coordinator was able to attend these he tended to guide the practice, using several approaches, including mindfulness, visualisation, memory recall, as well as contemplative observation.
The presentations were given by external experts.
2.2 Recruitment and participation
Staff and students were invited to participate in the drop-in sessions and to attend the presentations through messages on the QMU moderator and through posters and leaflets distributed around the University. Lecturers using contemplative practices in their teaching were briefed on the process and handed a sheet with a short outline of a possible five minute meditation at the beginning of a lecture. Only staff comfortable with contemplative practices were encouraged to participate, whereas those interested but not currently themselves practicing any form of contemplative practice were asked to first attend the introductory and drop-in sessions.
Staff intending to take part in the pilot were also asked to make sure that students were given an explanation of the rationale and approach taken, on the voluntary nature of participation (those not willing to participate could simply do something else quietly during the five minute practice) and to ensure the practice was strictly secular.
The project coordinator was asked by one member of staff to lead the first practice session for each of two groups of students and this was done.
2.3 Evaluation
Evaluation took place as follows:
A survey to all who attended at least one of the Introduction or drop-in sessions. An email with the request to complete the online survey was sent out in December 2012 and January 2013.
Students who experienced CPs through their classes were also asked about these through five questions inserted into the regular module evaluation questionnaires at the end of each semester (see Appendix 2).
Initial results
3.1 Evaluation of generic in-class sessions
These were evaluated through module evaluation forms (Y1 n=30, N=120; Y2 n=17, N=40), but there was also a small number (n=7) of responses to the online survey from students who indicated they had experienced these in-class practice sessions.
Table 1 shows the results of the module evaluation forms. Only the combined results for the two years will be discussed here, given the small numbers. About equal numbers of students reported to agree and disagree with the statement that they had experience of C/M (contemplation/mindfulness) prior to the semester. More students said they had engaged than not engaged (Q2). Slightly more students agreed than disagreed that C/M had helped them concentrate and focus during the class (Q3). Question four asked very explicitly about the perceived effect of C/M on academic practice and although more students indicated no effect, some indicated they had experienced an improvement in their academic practice, which is remarkable, given the very early phase of the project. Finally, there were about
equal numbers of students indicating they wished to continue with the practice at the start of each class.

Table 1. Student evaluations from in-class contemplative sessions: Year1 n=30; Year2 n=17. 'Agree' column shows % responses in 'strongly agree' and 'agree' categories. 'Disagree' column shows % responses in 'strongly disagree' and 'disagree' categories. Therefore totals < 100%. %-ages rounded to the nearest integer.

<table>
<thead>
<tr>
<th>Question</th>
<th>Agree % (Count) Year</th>
<th>Agree % (Count) Year</th>
<th>Total count</th>
<th>Disagree % (Count) Year</th>
<th>Disagree % (Count) Year</th>
<th>Total count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prior to this semester, I had experience of contemplation/mindfulness.</td>
<td>40 (12)</td>
<td>35 (6)</td>
<td>18</td>
<td>37 (13)</td>
<td>53 (8)</td>
<td>20</td>
</tr>
<tr>
<td>I regularly engaged with the mindfulness/contemplation programme this</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>term.</td>
<td>43 (13)</td>
<td>47 (8)</td>
<td>21</td>
<td>30 (9)</td>
<td>24 (4)</td>
<td>13</td>
</tr>
<tr>
<td>The mindfulness/contemplation practice was useful in helping me improve</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>my concentration and focus during each class session.</td>
<td>27 (8)</td>
<td>41 (7)</td>
<td>15</td>
<td>20 (6)</td>
<td>30 (5)</td>
<td>11</td>
</tr>
<tr>
<td>As a result of practicing mindfulness/contemplation I believe my</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>academic performance improved.</td>
<td>13 (4)</td>
<td>24 (4)</td>
<td>8</td>
<td>27 (8)</td>
<td>24 (4)</td>
<td>12</td>
</tr>
<tr>
<td>I wish to continue practicing mindfulness/contemplation at the start of</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>each class session.</td>
<td>27 (8)</td>
<td>47 (8)</td>
<td>16</td>
<td>37 (11)</td>
<td>41 (7)</td>
<td>18</td>
</tr>
</tbody>
</table>

Judging from the module evaluations Likert-scale questions alone, overall it can be observed that there was a mixed response to the introduction of C/M but that second year students seemed to indicate a more positive experience than first year students.

The on-line survey allowed a simple cross-tabulation that showed there were seven responses from students who had experienced the in-class sessions (these were all students of Lecturer A), six of whom were first year, two of whom were eligible for Lothian Equal Access Programme for Schools funding (see LEAPS 2011) funding. While none of these had been engaged in C/M practices before, five of the seven indicated they had found the in-class sessions helpful. Five (presumably the same students) also indicated they wished for the University to continue to provide C/M opportunities. Four of the seven indicated to have considered ("during the last three month") leaving the University and three responded that the M/C sessions had helped them decide to stay at QMU. While these numbers are very small, it is nevertheless encouraging that even after one semester of practice, some students have found the sessions helped them decide to continue their studies, rather than withdraw.

The comments made by students reflected this picture, but gave a little bit more insight into the dynamics of situation:

"Practising mindfulness was great, it help[s] you get more focus in class as you feel more relax[ed] and therefore understand everything better"

"It hasn't done any harm, it's been a fun factor to the module, but it hasn't directly improved my learning I feel"

"Because we were so many people and not all kept quiet it was hard to concentrate and not let the thoughts run off"

Again the picture is mixed, with some students disliking the practice, while others are very positive about the experience. It is interesting that many comments from the Y1 students refer to the difficulty of engaging with the C/M sessions in a large group, as a result of others
not taking it seriously and breaking the silence. The Y2 student did not report the same problem, but their class was significantly smaller than the Y1 group, which probably helped reduce the number of distractions.

3.2 Evaluation of drop-in lunchtime mindfulness sessions
For this evaluation, responses from the student and tutor online surveys were combined. Fifteen people indicated they had had experience of the expert-led drop-in sessions, five had experience of the self-led drop-in sessions. A total of 14 people indicated they had attended the expert-led drop-in sessions and all agreed that these had been helpful.

3.3 Evaluation of presentations introducing mindfulness
These were attended by 18 people, all of whom agreed that these had been helpful.

3.4 Evaluation of C/M general engagement and perceived benefits
Tables 2 & 3 provide a summary of the responses to Q5 and Q7, combining the student and staff on-line surveys.

**Table 2: overview of responses to Q5, staff and students combined. First sub-columns give counts.**

<table>
<thead>
<tr>
<th>5.d. I was already familiar with mindfulness and contemplation practices</th>
<th>5.e. I have begun to use mindfulness and contemplation regularly as a result of the sessions at QMU</th>
<th>5.f. I regularly engaged with the mindfulness and contemplation programme this semester</th>
<th>5.g. I was already engaged in mindfulness and contemplation</th>
<th>5.h. I would like QMU to continue to provide opportunities for staff and students to engage with mindfulness and contemplation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agree</td>
<td>51.80%</td>
<td>14</td>
<td>25.90%</td>
<td>7</td>
</tr>
<tr>
<td>Disagree</td>
<td>25.90%</td>
<td>7</td>
<td>33.30%</td>
<td>9</td>
</tr>
</tbody>
</table>

Just over 42% of respondents indicated they had engaged regularly with the C/M sessions in Semester 1 (Q5f), but this question could be misleading, as the word ‘regularly’ is open to interpretation. It is interesting to note that while 85% of respondents indicated they were familiar with C/M (Q5d in Table 2), just 27% said they were engaged in actual practice (Q5g in Table 2). Just under 26% indicated they had started to practice C/M as a result of the sessions at QMU (Q5e in Table 2) and over 92% of respondents indicated they would like the University to continue to offer opportunities to engage with C/M (Q5h in Table 2). All these results, while based on small numbers, are encouraging and indicative of the positive perceptions held by those who responded to the surveys.

**Table 3: Overview of responses to Q7: staff and student responses combined. First sub-columns give percentages. Second sub-columns give counts.**

<table>
<thead>
<tr>
<th>7.a. The mindfulness and contemplation practices was useful in helping me improve my concentration and focus</th>
<th>7.b. As a result of practicing mindfulness and contemplation I have improved my academic performance</th>
<th>7.c. The mindfulness and contemplation practices has helped me to cope with stress</th>
<th>7.d. The mindfulness and contemplation practices has helped me to be more effective</th>
<th>7.f. The mindfulness and contemplation practices has helped me to be more reflective</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agree</td>
<td>65.50%</td>
<td>19</td>
<td>25.00%</td>
<td>4</td>
</tr>
</tbody>
</table>
As can be seen from Table 3 above, over 63% of respondents indicated that the C/M practice helped them concentrate and focus (Q7a in Table 3), 25% perceived an improvement in their academic practice (Q7b in Table 3), over 62% indicated being better able to cope with stress (Q7c in Table 3), over 34% indicated it helped them be more effective (Q7d in Table 3) and over 51% responded it helped them be more reflective (Q7f in Table 3). Finally, more than 82% agreed that they wished to continue practicing the C/M (Q7g in Table 3). These results, while based on small numbers and while possibly not representative, are nevertheless very encouraging. It is particularly interesting to observe that the responses to the questions about specific benefits were more strongly in agreement (e.g. coping with stress; Q7a, 7c, 7f) than to questions about more general (and less well-defined) benefits (e.g. effectiveness, Q7b&d). Moreover, the specific benefits of focus, concentration and reflection, all perceived by the majority of respondents to be improved by the C/M practice, can be assumed to be important to learning.

3.6 Evaluative comments of the mindfulness practices: students

The online surveys to students included open questions inviting respondents to comment on their experience with the C/M practices in general. The comments were overwhelmingly positive here, indicating that for most people who took the time to write in comments, the C/M provided opportunities to de-stress, take a step back and calm down: "very calming before lesson and improved my concentration skills."

There was, however, also a minority of less favourable comments, indicating that not everyone managed to engage with the practice or found it helpful when they did: "I did not find that it worked for me, first 10 mins of class was wasted."

As the number of lectures in the specific module had been reduced, very little time was spent on trying to explain to students why C/M was introduced. Instead, the focus was on the practices itself. Perhaps a more in-depth explanation of the rationale behind introducing C/M in the classroom would be useful to students and would alleviate the fear that C/M was taking time away from the lecture and show how time spent in C/M may enhance the quality of the experience of the rest of the lecture.

Another survey question asked students to comment on the perceived effect of C/M specifically on study, work and life. Given the very brief exposure to C/M, it was expected that most respondents would be positive though cautious about identifying any specific benefits. However, it was interesting that the majority of those who answered this question were quite articulate in what they had experienced as benefits, for example:

"it helps me to stay focused and balanced during the times of pressure"

"I felt less stress in the lead up to exams"

Thus these students expressed a direct link between their engagement with the C/M practices and a sense of calmness, of better coping under stress and of better focus and concentration, all of which are likely to contribute to better learning.

Evaluative comments of the mindfulness practices: staff

"These sessions had a transformative effect upon my students. Their concentration rapidly increased during the semester and their alertness and responsiveness to my questions was much stronger than in previous years and I have been lecturing for 30 years." (informal email from lecturer)

The online surveys to staff included the same open questions as to student (see above) inviting respondents to comment on their experience with the C/M practices in general. Some commented on their experience of using C/M with their students (as above), while most reflected their personal experience of the practices:

"I totally loved it and was glad to see that the sessions continued"
"enjoyable but I found the times I most needed it were the times I was unable to go due to work or other commitments."

When asked about the perceived effect specifically on study, work and life, staff commented on the general helpfulness, but also indicated that it would be hard to establish impact on other areas of work and life:

"I haven't experienced many concrete positive impacts yet but I think I may have to do it more regularly!"

"It has all been very positive and has increased with increasing practice, particularly useful in helping me pace my work, helped with concentration and well-being as well as reflection, which is very important for a practitioner."

Despite the justifiable reservations, there was an openness to the possibilities of positive impact (to be expected from people who participated in the practice). The responses were positive, except that compared with the students there was more emphasis on the difficulties of fitting the practice into busy work and life schedules. Also, overall staff seemed more cautious than students in identifying any direct links between the practice and their work.

Taken all together these responses present a positive picture of the experiences of students and staff, though clearly there were challenges to participation, such as time, and indications that it was too early to identify impact, which is realistic given the time frame.

**Conclusion**

This paper provides a summary of project implementation and evaluation during and after Semester 1 respectively. A range of Contemplation/Mindfulness opportunities were offered to students and tutors and two lecturers participated in implementing C/M in their classes. Furthermore drop-in sessions were open to all staff and students. Project evaluation was done through module evaluation forms and an online survey to students and staff.

Although the project is unable to provide direct measures of the impact of C/M on retention or any other aspect of the student experience, interim results overall seem highly positive, based on self-reporting by students and staff, with some indication that engagement in C/M practices could have a range of beneficial effects for the individual, some of which may impact on teaching, learning, assessment and retention, besides more general aspects of well-being. However, the fact that module evaluations by students were somewhat less positive than the online survey probably suggests that those who responded to the online survey were more likely to have had a positive experience, therefore the results should be treated with caution.

It is very encouraging and exciting that this project has gained funding from the University and the initial results suggest that this was justified. It is hoped that in the course of semester 2 more students and staff will engage with the project and the opportunities it offers so that C/M practices can become further integrated into teaching and learning. This may then lead to more detailed analysis of the responses and also a conceptualisation of the range of experiences reported in relation to learning and teaching.

**References**


The following questions were used with a Likert scale (Strongly Agree - Agree- Neither Agree or Disagree - Disagree - Strongly Disagree - Not Applicable) for the in-class practice. There was also one open question (Q.6) to provide students with an opportunity to comment freely on their experience
Prior to this semester, I had experience of contemplation/mindfulness. I regularly engaged with the mindfulness/contemplation programme this term. The mindfulness/contemplation practice was useful in helping me improve my concentration and focus during each class session.
As a result of practicing mindfulness/contemplation I believe my academic performance improved.
I wish to continue practicing mindfulness/contemplation at the start of each class session. Please share any other thoughts and feelings regarding mindfulness contemplation practice this semester.

Appendix 2 Example practice

Contemplative Practice and Mindfulness in Higher Education

Meditation in 7 steps:

Be comfortable in body & mind. Sit in an upright chair, your back well supported. Feet flat on the floor (you could take off your shoes). Head easily balanced on top of your spine. Hands palms-up in your lap, one palm on top of the other, or palms down, on your knees. Arms relaxed by your sides

Deep breaths: Take three deep breaths in and out, as deep as is comfortable, without straining. Do this in your own rhythm

Centre yourself mentally: Become aware of the feelings of your body on the chair, your feet on the floor. Then become aware of the sounds around you, any smells, the feeling of the air on your skin, and of your clothes on your skin. Close your eyes if they are still open.

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**Bring your attention to your breathing:** Focus on the feeling and sound of your breathing. Remain still and feel the gentle in- and outflow of your breath. Feel it in your ribcage/chest, your abdomen, shoulders, and nostrils.

**Return to the breath:** Usually, after some time, a sound or a memory, a feeling or emotion will carry your attention with it. You may be caught up into this flow for just a few seconds or much longer. At some point you will realise what has happened. When you do, just return your attention to your breathing as in step 4. Keep going through step 4 and 5 during the meditation as needed.

**Return to the here and now:** Once the time is up, bring your attention back to the sensations of your body on the chair and feet on the floor. Become aware of the sounds and the feeling of the air on your skin. Become aware of the people in the room and bring yourself solidly back to the here and the now.

**Resume regular activity:** Gently open your eyes. Take a few minutes to readjust to where you are. Smile. Drink a glass of water. If you want, write a journal entry. Then resume your activities as usual.
Curriculum-as-vehicle: a journey explored

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Abstract
This paper presents an account of curriculum development and change which is set in an institutional, national and international context. Parallels and divergences in principles and practices relating to curriculum development will be highlighted. Discussion is supported by both Scottish and international perspectives drawn from responses to the QAA Enhancement Theme activities, and from local and international responses to one of the Enhancement Theme Discussion Paper (Fotheringham, Strickland and Aitchison, 2012). Analysis and synthesis of the responses to the Discussion Paper and those gathered though Enhancement Theme activities were used to draw conclusions about the extent to which factors affect curriculum internationally and in a Scottish context. The paper explores how a theoretical model was used as an organising principle in an institutional context to shape the development of curriculum. Given the range of influences that are brought to bear on the development of the curriculum, the concept of ‘curriculum-as-vehicle’ (Fotheringham, Strickland and Aitchison, 2012) is utilised to recognize the possibility of over-burdening the curriculum with competing priorities. An institutional context is used to identify the interplay between internal agendas and external influences at the interface with the student experience. Three institutional case studies are used to illustrate different aspects of curriculum change, which takes the discussion beyond traditional conceptions of curriculum as product (Fraser and Bosanquet, 2006), presenting employer involvement, student engagement and student support as key institutional and curricular considerations.

Introduction
The QAA’s current Enhancement Theme, Developing and Supporting the Curriculum (DSC) has provided opportunities for Scottish HEIs to identify, review, and compare curriculum developments not only in Scottish universities but also in the rest of the world. There is debate in the media and in the literature about influences upon curriculum developments as well as discussion about factors that should influence our curricular offerings to students in years to come. This paper presents an account of institutional curriculum development and change which is reviewed in light of conceptual tools developed in a QAA commissioned discussion paper, Developing and supporting the curriculum: Directions, decisions and debate (Fotheringham, Strickland and Aitchison, 2012), of international developments in curriculum, and of relevant literature.

Phase 1 of the Enhancement Theme
In phase 1 of the Enhancement Theme (March 2011-June 2012) the sector began to explore amongst regional academic communities key questions about how the student body is changing, how curriculum is shaped and delivered, and what development may be required to support staff in developing curricula which will meet our ambitions for students in higher education in the 21st century. A synopsis of the deliberations around those key questions (Gunn, 2012) indicates that although the higher education institutions (HEIs) themselves vary widely in history, mission and objective, these events enabled the identification of important key themes relating to curriculum development. The Enhancement Theme itself provided a warrant to address these themes in local institutions. The degree of consensus found amongst the HEI community ensured that the local institutional teams could be reasonably confident that their plans and local initiatives could be usefully shared with others in the sector, the DSC theme serving as a real catalyst for action. Discussion of the impact of the changing characteristics of future students on the curriculum soon indicated that students’ previous educational experience, their learning support needs, their differential degrees of digital literacy, their preferred modes of study and their geographical locations during study are some of the most important features likely to have significant impact not only upon present and future curriculum developments but also upon
the development and support required for staff. In Mayes' (2012) synthesis of institutional activity across the HE sector, he identifies ‘the changing student’ as one of the four key strands of current institutional activity, suggesting that these strands should be examined “in finer grain”. We shared Mayes’ interest in these themes and, firstly, we focussed on the extent to which our local perception of the changing student characteristics and the ways in which curriculum should be shaped and supported represented a distinctly Scottish conception of curriculum; secondly, we considered the extent to which international colleagues had different views and priorities from which we could learn and which we could apply to our own institutional activities and plans.

**International context**

In January 2013, Edinburgh Napier University hosted a workshop at the 11th Hawaiian International Conference on Education, which was attended by 18 delegates from Australia, Canada, Korea, USA and England. Apart from one school teacher and one PhD student, all the delegates were in academic or professional support roles in Higher Education in a broad range of disciplines. We used similar activities and repurposed resources from the East of Scotland DSC Regional Road Show in order to generate comparable data between this workshop for an international audience and our own Scottish regional events held in 2012. The overall aims of both the Scottish and the international workshop were to gather views about the characteristics of the changing student body in delegates’ national and institutional contexts and to learn from their ideas about the development required for staff to support and deliver new models of curriculum. All of the delegates anticipated far greater student diversity than ever before, and, while there were very many similarities in the characteristics identified by colleagues in Hawaii and in Edinburgh, we noted some interesting differences. Distinctive amongst the international delegates was the need for relevant curricular provision and support for students studying in remote geographical locations and for students with established mental health conditions, and opportunities for language development amongst non-native English speakers and for language acquisition (such as Mandarin). Nevertheless, while the characteristics of the changing student body may vary according to discipline and to a certain extent to nationality, we conclude that the outcomes from each of the workshops in Hawaii and in Edinburgh were broadly similar, in particular government led educational reforms and the importance of working in partnership with employers.

Our conception of the curriculum as vehicle, in which the curriculum is recognized as being the pivotal point between local and national agendas and the students whom these policies are designed to serve, was offered in the discussion paper commissioned by the QAA as a way of conceptualling curriculum (Fotheringham, Strickland and Aitchison, 2012). We found this was a useful portrayal of curriculum which we could share during the early days of our institutional team’s work (Figure 1: Curriculum as vehicle). Our experience with colleagues in Hawaii suggests that the curricular vehicle as we portrayed it and the load it carries is not a uniquely Scottish one but one which may be recognized by an international audience. Karset and Siveskin (2010) discuss the extent to which there is “public legitimacy for the cultivation of national cultures” as part of the overall purpose of curriculum and, correspondingly, ‘national culture’ was identified by several international colleagues as one item which was missing from our institutional agendas and priorities shown in the diagram below. Certainly it seems that the term ‘national culture’ is not an item with clear defining characteristics given priority in curriculum developments in Scotland at present. Indeed, there is a question to be framed around what is meant by national culture and how that may impact on education in its broadest sense.
Factors affecting curriculum

As the Theme’s work has developed, and as we have become more interested in analysing the factors affecting curriculum at a more fine grained level, we find that we agree with Mayes (2012) that conceptually the ‘curriculum as vehicle’ metaphor may be "too broad to be useful" in this regard; however, it provides a useful tool for dialogue. A related view of curriculum is offered by Barnett (2009), who also suggests a vehicle as a metaphor for students’ development, but one which is built around subject knowledge. Barnett’s portrayal enables a distinction to be made amongst knowing (discipline knowledge), a student’s development, and the role of the curricula and pedagogies in nurturing the development of the student’s qualities and dispositions. This conception of curriculum emphasises that discipline knowledge is only one element of the university experience that influences how well students are prepared for their future lives and careers. Discussions about how best to describe curriculum remain important, and we have found that developing our own conceptions and referring to other analytical frameworks has opened up new possibilities for discussion amongst our institutional team and has allowed us to see aspects of curriculum development and support in a new light. In Rorty’s first essay on the contingency of language (cited in Allan, J 2003, p20), he refers to the use of metaphor as a recontextualisation "where metaphorical redescription provides a jolt to the imagination" (cited in Allan, J 2003, p20). We have certainly found this to be the case.

Through both the national and international workshops, it is clear that higher educational professionals recognize the danger of overburdening the curriculum with competing global, national and institutional priorities, and of potentially marginalising disciplinary priorities and subject based criteria. Further, the discussions indicated that these priorities, and the complex interactions between them, have been the subject of debate internationally, and this is certainly the case within our own institution. Figure 2 (Factors affecting curriculum, from Fotheringham, Strickland and Aitchison, 2012) provides a representation of the factors affecting curriculum and their impact upon the student who is typically seen as being at the heart of the curriculum. The diagram, with its irregular concentric circles, attempts to illustrate the differential impact of the seven external factors upon the institution, on the professional discipline and on the academic subject. The student’s (changing) knowledge, skills and expectations exert pressure from the centre, impacting also upon the shape of the curriculum. We agree with Barnett’s observation (Barnett, 2000) that an analysis of curricula needs to be set within a social and global context, but even that may not sufficiently portray the complexity of the social processes at work within the different disciplines. He concludes that there is no definite pattern to changes taking place in curricula. In pulling together the outcomes of both the Scottish and international workshops where some of these complex social processes were discussed, we have observed that, whilst it may not be a ‘pattern’ as defined by Barnett (2000), there is consistency of movement in the development of various
aspects of curriculum. An example of this includes the alignment of curricula with national standards in Scotland, Australia, Canada and the USA amongst others.

The Melbourne Declaration on Educational Goals for Young Australians (Ministerial Council on Education, Employment, Training and Youth Affairs, 2009) is summarised in its two goals: firstly for Australian schooling to promote excellence and equity, and secondly for all young Australians to become successful learners, confident and creative individuals, and active and informed citizens. In April 2008, the Council of Ministers of Education in Canada (CMEC) announced the release of Learn Canada 2020, which they described as "a new vision to address the education needs and aspirations of Canadians" (CMEC, 2008). The Learn Canada 2020 framework addresses every aspect of lifelong learning, but the vision for elementary to high school systems is focussed on high national standards which will deliver "world-class skills in literacy, numeracy, and science". In the USA in 2009, President Barack Obama announced the launch of Race to the Top which was intended to advance reforms initiated under The No Child Left Behind (NCLB) Act of 2001. The reforms attempt to ensure proficiency in language, arts and mathematics by the introduction of "adequate yearly progress" tests for all schools which are measured against "common core standards" (National Governors Association Center for Best Practices, 2010). The Help Your Child series of publications associated with the new curriculum encourages parents to help their children to become, "strong readers, good students and responsible citizens" (US Department of Education, 2003) and are typical of the "proselytizing rhetoric", which Priestly (2010, p26) observes accompanies recent educational reform. In Scotland in 2010, the Curriculum for Excellence (CiE) which is for young people between the ages of 3 to 18 was introduced into schools with its overarching aim being, "to enable all children to develop their capacities as successful learners, confident individuals, responsible citizens and effective contributors to society" (Scottish Executive, 2004). Like each of the other national reforms described above, the ambitions for CiE are to be achieved by schools working to a national qualifications framework, emphasis upon learning outcomes and experiences and a shift from more subject specific to more generic criteria (Priestly, 2010). Whilst the Curriculum for Excellence appears to be a distinctively Scottish factor impacting upon curriculum, internationally, parallels suggest that school curriculum reform is widespread. The alignment of curriculum with nationally agreed high standards in literacy, maths and science plus the establishment of measurable goals are central to these developments, all of which are designed to improve individual educational outcomes.
Institutional case studies have been used as a means to identify the juxtaposition of internal agendas and external influences at the interface with the student experience. An examination of the three case studies presented here together with other institutional activities that we have undertaken during the course of phase 1 and 2 of this Enhancement Theme have led us to recognize that the external pressures have weighed very heavily on curriculum development and change, indeed far more so than we had initially thought to be the case.

In 2011/12, we carried out the Academic Portfolio Review (Edinburgh Napier University, 2012a) which was submitted as a case study for phase 1 of the Theme's activities. The Review examined the 'health' of our present portfolio of academic programmes, but it also opened important conversations with staff, employers and students about ways in which our future academic portfolio would be capable of meeting the future needs of students, employers, the economy, and society. The external environment, (represented by each of...
the block arrows in Figure 2), was discussed at a series of consultative events at which representative stakeholders were able to start to plan how the curriculum might be reconfigured to respond to these external pressures. At the same time as these high level discussions were taking place, our second case study known as Curriculum Design using Technology Enhanced Learning for the BA (Hons) Youth Work Programme (Edinburgh Napier University, 2012b) was taking shape. We understood this to be a response to a number of the external factors shown in Figure 2, including developments in industry and workplace, social expectations of higher education and developments in technology.

A blended learning work-based degree in Youth Work was developed and delivered in partnership between Edinburgh Napier University supported by City of Edinburgh Council. The degree was delivered almost exclusively online with the support of online materials, synchronous tutorials and workplace supervisors. We presented this as an example of curriculum design which took account not only of external factors impacting on curriculum, but also of the changing student characteristics that had typified our discussions both in Scotland and with an international audience in respect of the need for flexible, online work based programmes. Despite universally positive feedback from students, from the City of Edinburgh Council, the accreditation of the programme by the Community Learning and Development Standards Councils, and despite its commended innovative curriculum design and mode of delivery, the programme has failed to recruit sufficient students for the year ahead. Although this is a tremendously disappointing outcome the lessons learned from this innovation and the development of practice amongst our own academics and our partners has provided invaluable experience. It reminds us that although models and frameworks can help us to shape thinking and discussion about curriculum development, they do not represent theories of curriculum demand nor any kind of forecasting mechanism. Parker (2003) explores the adverse consequences of ‘employment-based curriculum’ in terms of its inhibiting effect on higher education. Using Barnett’s distinction between traditional and emerging curricula (Barnett et al, 2001), Parker suggests that the emerging curriculum suppresses the subject as the primary focus. This forces a ‘commodified’ curriculum which in turn commodifies the student into one seeking a ‘knowledge-skill-work packet’ (Parker, 2003 p534) required for progression in the world of work. She laments the paucity of any hard data which supports the view that undergraduate students want such a ‘commodified’ curriculum. Our experience with the BA Youth Work suggests that while we should be cautious in anticipating student demand for innovative delivery models and modes of study in untried areas of curriculum, we should not overlook the enthusiasm of the first cohort of students for the way in which the programme allowed them to meet their need to combine paid employment and caring responsibilities with degree level study. We remain optimistic for this type of curriculum development and look forward to further research which may show whether or not this optimism to have been well-founded.

Figure 2 illustrates how various external factors exert pressure on the internal institutional environment. We can also see from the Enhancement Theme case study repository (http://www.enhancementthemes.ac.uk/resources/case-studies) that practice is already underway in several universities in the development and support of curriculum structures that are intended to more adaptable to the changing internal and external environment portrayed in the diagram. Mayes (2012) identifies six key aspects of curriculum flexibility16 and we present our E-Placement Scotland case study as an example of a development which aligns well with our model of factors affecting curriculum and with several aspects of curriculum flexibility. E-placement Scotland, funded by Scottish Funding Council and with support from partners17, is designed to create opportunities for computing students to obtain paid work placements across Scotland. Edinburgh Napier University has created a matching service which helps students to connect with available work roles which match their skills, career aspirations and availability.

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16 Flexible curriculum structures, flexible delivery methods, flexible forms of assessment, personalisation (flexibility for the individual learner), flexible learning methods, flexible curriculum boundaries (Mayes 2013)

17 Scottish Higher Education Employability Forum, Scotland IS and E-skills UK.
The flexibility of these placements is of particular interest to our discussion in this paper because they can allow all computing students to access work placements, including those who might otherwise have been excluded from more traditional student placement structures because of disability, part time working arrangements or caring responsibilities. These placements, which can be for short or long term, are valued highly by staff in the School of Computing, by participating employers and by the students themselves because of their potential to enhance graduate employability, to develop skills which can inform course work and classroom interaction and to promote engagement and networking opportunities with the profession prior to graduation (Edinburgh Napier University, 2013). These placements are undoubtedly sound educationally and highly valued, but they too indicate the drive from external factors on the institutional development of curriculum. The value which our students have placed on their placement experience is consistent with an Australian study in Griffith University (Crebert et al., 2004) where as part of a wider investigation into generic skills (Griffith Graduate Project), Crebert and colleagues attempted to determine the perceptions of employers and students of the potential for work placements to develop generic skills, abilities and capacities. Their findings supported the inclusion of work placements for undergraduates and highlighted the potential value of involving employers in other aspects of curriculum design and even assessment. We do not share Parker’s (2003) disdain for ‘emerging curriculum’ as our experience of E-placement Scotland indicates that it is possible to work through the concentric circles in Figure 2 with disciplinary rigour.

Conclusion
At the outset of this Theme, we had assumed that student and discipline-led factors which feature heavily in our institutional commitments and communications to students would be the predominating influences on curriculum. However by applying the case studies and information from international accounts of curriculum development, it seems that external factors such as government-led educational reforms and funding packages which reflect both governmental and workplace priorities exert much more influence than we had previously accorded to them. We had held the belief that educational and student-based variables were paramount in driving curriculum. We have come to the conclusion that the external influences exert pressure not solely on curriculum development but also become part of the process of the curriculum and of the curriculum product itself. It is not surprising that curriculum development relies on the professional judgement of academics (Priestly, 2010) and on the active engagement of students, but our analysis of case studies has emphasised the importance of the involvement of employers and of the values, beliefs and expectations of the agencies which are associated with each ring of the concentric circles seen in Figure 2. It is also clear that although Figure 2 had offered each of the concentric circles as a discrete element of influence on the delivery of curriculum, this does not adequately represent the reality of how educational experiences for students are shaped and realised. On reflection, it seems that there is a permeability between these concentric circles which results in the dynamic nature of much of the curriculum development encountered in institutions.

The DSC Enhancement Theme has enabled the development of a diverse publicly available institutional database of practice, comprising programmes of work and case studies. On the basis of the analysis carried out as part of this paper and using the database, there is potential to refine Figure 2 to take into account the permeability of the membranes between the concentric circles which would result in a much more dynamic and less compartmentalised portrayal of the factors affecting curriculum. Such a model has potential value as a mechanism for framing institutional discussions which explicitly acknowledge the drivers for change in curriculum.

References


Edinburgh Napier University (2012a) Academic Portfolio Review. Available online staff.napier.ac.uk/.../Edinburgh_Napier_DSC_Case_Study_1/APR.docx. [last accessed 3/06/13].


Edinburgh Napier University (2013) Case Study: e-Placement Scotland (to be published on QAA case study repository at http://www.enhancementthemes.ac.uk/resources/case-studies [last accessed 3/06/13].


Building the curriculum in higher education: a conceptual framework

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ABSTRACT In need for a common language and a tool stimulating a more holistic and long-term approach to curriculum development the Academic Development Unit of the KU Leuven developed a conceptual scheme to be used as a mindmap by all stakeholders working on curricula. Key concepts underpinning various views on curriculum development were identified from literature. Next different conceptions on curriculum design were evaluated against a set of usability characteristics resulting in the identification and visualisation of key elements describing the curriculum as a whole and the relationships between them. The scheme essentially emphasizes coherence and consistency between courses of a curriculum. Four quality circles represent several pathways to design, revise or evaluate the curriculum. The use of the scheme was evaluated in training sessions with program leaders and educational developers. The results indicate that the scheme is a useful tool to gain full insight in the complexity of the curriculum.

Introduction
Within higher education a curriculum or a program of study is a pivotal issue in the relationship between students, teaching staff and the university. However different stakeholders experience the curriculum (as a program of study consisting of several courses) from their point of view and are often only aware of a part of all important aspects building the curriculum. Therefore curriculum issues are complex to discuss with those different stakeholders. Clear and useful tools that describe all curriculum building blocks and their relationships can be helpful to stimulate all stakeholders to tackle educational issues taking into account the entire curriculum perspective.

Since 1977, the Academic Development Unit at the KU Leuven has a sustained effort to improve the quality of teaching in this research intensive university. During the first decades, academic development initiatives mainly focused on enhancing instructional design of individual courses to support student learning. For this purpose the unit developed a conceptual scheme (Elen 2002) which emphasizes the importance of coherence and consistency in instructional decision-making. This scheme is in line with worldwide practices used to support teachers in higher education (Wiggins and McTighe 1998; Biggs 1999; Fink 2003; Saroyan and Amundsen 2004). Throughout the Academic Development Unit's own instructional development initiatives this scheme proved to be very useful (Elen 2002). It helps staff to develop a common 'language' and to focus on student learning, it offers them an 'image' to tackle course design issues. An important limitation of the scheme however was the lack of a curriculum perspective.

Around the millennium change, two governmental policy initiatives resulted in a shift towards more attention for curricula. Firstly, due to the Bologna declaration (1999) the KU Leuven curricula were reformed from a two - two or two - three years 'Candidate - Licentiate' structure to a three - one or three - two years 'Bachelor - Master' structure. Secondly, the higher education context in Europe provided universities with pre-determined learning outcomes, mainly to facilitate student mobility. Quality Assurance (QA) Agencies were established to recognize institutions and/or programs of study as having met these standards (Seto and Wells 2007). In Belgium this QA system was introduced in 2003, resulting in the accreditation of programs since 2006. From then on the Academic Development Unit's conceptual scheme on instructional design really met its limitations as there was no explicit link with the curriculum. The fact that each course is but one element in a learning process was not taken into account. However, it seems obvious that courses, being the 'building blocks' of a curriculum, need to be well-aligned in order to constitute a coherent curriculum, in order to meet the assumed learning outcomes.
The aim of this paper is to present a scheme that can be used as a mindmap by all stakeholders (teaching staff, students, managers, representatives of the discipline and labour market,...) involved in curriculum development. The starting point was the exploration of the literature on curriculum and its design. Firstly the key concepts that underpin various points of view on curriculum development were described. Then different conceptions on curriculum design were evaluated against a set of characteristics found to be essential to make the scheme easy to grasp and usefull in a discussion on the curriculum with and between its different stakeholders. This exercise resulted in the identification of the key components describing the curriculum as a whole and the relationships between them. Through the introduction of four quality circles in the resulting conceptual scheme, several pathways to design, revise or evaluate the curriculum were proposed. The use of the scheme was evaluated in training sessions with program leaders and educational developers. The results of this evaluation will be presented. Finally the limitations of this proposal will be discussed and approaches for further research suggested.

Key concepts for curriculum development
The term 'curriculum' used within the higher education context can mean different things to different groups (Barnett and Coate 2005; Fraser and Bosanquet 2006). Sometimes the curriculum is reduced to the structure and content within one course. In this paper the description of course and program that is made by Biggs and Tang (2011,113) is retained. So the focus is on aspects of curriculum development that go beyond those of course design and include all courses within one program. In this paper curriculum and program (of study) are in fact synonyms.

The curriculum as it is conceptualized in this paper is not a static description. On the contrary, it is a dynamic environment that cannot be grasped within one snapshot. It develops continuously due to environmental demands and contextual changes. Therefore to make the conceptual scheme useful in different contexts (e.g. designing, revision, experiencing) and for different stakeholders (teachers, students, policy makers, alumni,...) the curriculum is approached from different points of view.

2.1 Development of understanding
A first perspective taken into account was the vision of the curriculum as a place to develop understanding. Kelly (2009, 91) argues that outcomes of a curriculum should be defined in terms of intellectual development and cognitive functioning rather than in terms of quantities of knowledge absorbed or in terms of behavioural changes. He emphasizes the consequences for curriculum planning (Kelly 2009, 94): (1) rejection of the knowledge base for curriculum planning, (2) clear statements of the underlying educational principles or processes, and (3) education as a process of development. Discussing the curriculum in higher education should be about discussing the students’ learning experience as is emphasized by other authors (Oliver et al. 2008; Letschert 2004; Davis 2011; Litzinger et al. 2011). By incorporating the process of intellectual development student learning becomes prevalent.

2.2 Product and process approach
A second perspective taken is the focus on a process approach additional to the product approach. The product approach is initiated by Tyler’s (1949) rather mechanistic conceptualization of planning quality curricula by posing four questions: (1) What is to be accomplished? (2) What learning experiences will help accomplish the purposes? (3) How can these learning experiences be effectively organized? (4) How can the effectiveness of the learning be evaluated?

Stenhouse (1975) advocated for a process approach. He proposed to select content, develop teaching strategies, sequence learning experiences, and assess students’ strengths and weaknesses with an emphasis on empiricism: a process curriculum was designed to be not an outline to be followed but a proposal to be tested. Peter Knight (2001) also argues for a process approach by stressing the necessity of coherence and progression in a curriculum. He returns to Jerome Bruner’s concept of the spiral curriculum (Bruner 1960), saying “Bruner depicted a good curriculum as a spiral of repeated engagements to improve
and deepen skills, concepts, attitudes and values, and extend their reach. The spiral curriculum has coherence, progression and, I claim, value” (Knight 2001, 371).

2.3 Planned, delivered, experienced curriculum

The final perspective is recognition of the difference between the planned, delivered and experienced curriculum (Prideaux 2003). What is planned by staff members for the students may differ from what is delivered and from what students experience or actually learn (Posner 1995). Therefore a continuous process of aligning planned outcomes with the delivered program and its confrontation with the experience of graduated students and alumni is necessary. This approach also serves to uncover both the hidden curriculum (unconsciously transmitted and received messages by instructors and students) and the null curriculum (what is not taught) (Eisner 1979).

Elements for a conceptual scheme

As a first step in the process of establishing the scheme the literature describing curriculum design within higher education was searched. The resulting frameworks (Davis 2011; Diamond 2008; Herring and Bryan 2001; Hubball and Burt 2004; Morcke and Eika 2009; Oliver et al. 2008; Prideaux 2007; Stark and Lattuca 1997) were analysed on meeting the following characteristics:

- based on scientific literature concerning (adult) learning theories, curriculum development, academic or educational development, instructional design;
- clarifying both the distinction and relation between curriculum development as a whole and design of individual courses;
- generic in its description of the curriculum so that it is usable for every discipline within higher education;
- be useful in the design, revision and evaluation of a curriculum;
- giving opportunities to every stakeholder (teaching staff, students, managers, representatives of the discipline and labour market,...) to discuss the curriculum from his own point of view;
- easy to introduce via a short presentation, a metaphor or a clear schematic representation.

All frameworks met at least some of the characteristics and were taken to the next step in the analysis. Because of the impact of accreditation on curriculum development, the quality criteria used in several accreditation schemes were also included (Stensaker and Harvey, 2006).

Four members of the unit having experience in curriculum development and quality assurance compared all components of the different frameworks. Similar components were aggregated into meaningful clusters, which were discussed until consensus was reached about their content and meaning. This work resulted in the following eleven elements for curriculum development:

- The educational philosophy: the description of the educational purposes and instructional philosophy that underlie curriculum decisions, reflecting the vision and mission of the institution - e.g. which learning theories underpin teaching and learning (Diamond 2008; Stark and Lattuca 1997; Oliver et al. 2008; Morcke and Eika 2009).

The positioning of the curriculum: encompasses the level (Undergraduate, Bachelor, Master,…), orientation (strategic choices about content) (Diamond 2008) and the strategic choices about the disciplines involved compared to similar curricula at other institutes. For this element ample description was found in literature, but our own experience and context told us that introducing the ‘level’ actually helps stakeholders to discuss if their proposed program is most suitable to result in a Bachelor, Master or other degree. Moreover positioning its own curriculum against similar curricula regarding the disciplinary content enables to substantiate the choices made by the program.

The learning outcomes at the program level: selection and integration of the knowledge, skills, and attitudes to be acquired by the graduates (Diamond 2008; Stark and Lattuca 1997). In accreditation schemes curricular outcomes are mentioned in terms of 'results judged against targets' (Stensaker and Harvey 2006).
Structure and sequence: all courses are sequenced and structured together to form a coherent program of study (Stark and Lattuca 1997; Stensaker and Harvey 2006) with specific attention to vertical and horizontal integration (Hubball and Burt, 2004).

Learning, teaching and assessment strategies should be tuned to the educational philosophy, should enable students to obtain the learning outcomes and should be aligned between courses (Stark and Lattuca 1997; Oliver et al. 2008; Stensaker and Harvey 2006). The discipline, the research community, the labor market (with alumni) and the society are all closely related to and influencing curriculum choices. It’s important to take into account e.g. the needs of employers and recruiters, the expectations of society, new findings of the research communities, the accreditation requirements and those of the disciplinary associations (Diamond 2008; Stark and Lattuca 1997).

Institutional resources include facilities for teaching, organisational infrastructure and technology, quality and quantity of teaching staff, their experience and expertise, staff/student ratio and financial resources (Diamond 2008; Stark and Lattuca 1997; Stensaker and Harvey 2006).

Policy includes departmental, institutional, regional, (inter)national regulation, organization and legislation (Stark and Lattuca 1997; Oliver et al. 2008).

Student characteristics that need to be considered are student selection, characteristics of incoming students, diverse background of students (previous knowledge, experience or degrees, ethnic diversity,...) (Diamond 2008; Stark and Lattuca 1997; Stensaker and Harvey 2006).

Resources for students include student guidance, student mobility and facilities for students/learning (Stensaker and Harvey 2006)

The individual courses that together form the program of study (Prosser and Trigwell 1999, Biggs 1999, Ramsden 2003, Biggs and Tang 2011, Elen 2002).

Next an analysis was made on how these different elements are interrelated or influence each other, starting from the schemes of the papers discussed. In order to make the relationships visible and easily discussable, the elements were organized in a schematic representation as was seen in some of the other frameworks. Initially this was done by the four members of the Academic Development Unit, resulting in a proposal for the scheme. Later this proposal was discussed with educational developers from within the faculties, a selection of program leaders and international experts on academic development in order to fine-tune the conceptual scheme (see Figure 1).

Figure 1. Conceptual scheme for curriculum development
The educational philosophy (1), the positioning of the curriculum (2) and the learning outcomes (3) constitute the 'planned curriculum', represented by a triangle box in the scheme. The three metaconcepts within are in close relationship to each other. The educational philosophy describes which learning theories underpin the choices in teaching and learning strategies to help student reach the learning outcomes. The learning outcomes are determined by the positioning or the scope that is chosen for the curriculum. The main box in the center stands for 'the aligned curriculum'. The conceptual scheme for course design (Elen 2002) is placed in the middle of this box and is visualised in different layers, indicating that all courses are sequenced ((4) structure and sequence) and aligned ((5) learning, teaching and assessment strategies). They represent the most visible part (for every stakeholder) of a curriculum, the so-called program of study. Moreover the arrow between the main box and the triangle box indicates the 'planned curriculum' which is guiding how individual courses are designed and how the different courses are structured and sequenced and aligned to each other. These two boxes (top triangle box and main central box) are 'owned' by the department or the group of teachers that deliver the curriculum, meaning that they take decisions about the (re)design process. On top of the scheme, there is the block (6) representing the discipline, the research community, the labor market (with alumni) and the society as a kind of advisory board. All these stakeholders are influencing (and influenced by) the choices that departments make in defining their position/profile, learning outcomes and educational philosophy ((1), (2) and (3)). Besides the main box in the center, all organizational or managerial elements are represented that influence the way courses (11) are designed, sequenced (4) or aligned (5): institutional resources (7), policy (8), student characteristics (9) and resources for students (10). These components have to be taken into account by departments and program leaders in their curriculum decision-making.
Four circles for quality development of curricula
To cope with the complexity of working on curriculum related issues, four circles of quality development are proposed (A, B, C & D), which are closely interconnected. Going through all components connected by a circle enables their alignment. Changing one of the components will influence the other connected components. Going through the circles also means taking into account the perspectives and agendas of different stakeholders and searching for the best answer or compromise. This focus on change was partly inspired by the ‘paths’ described by Stark and Lattuca (1997), illustrating how evaluation and adjustment operate in their curriculum model.

A. The quality circle of the planned curriculum
By confronting the elements of the planned curriculum to the expectations of the influencing stakeholders, both new and renewed curricula can be planned or the plans can be evaluated. To plan or adjust a curriculum it is necessary to find out what the expectations from the labor market and society are for graduates in the discipline. Also the input from the associated research communities - being on top of the state-of-the-art knowledge - is essential. To position a program within the educational market it is necessary to compare the planned outcomes with equal or similar programs within the institute and abroad. The educational philosophy should be attuned to recent research on learning and teaching.

B. The implementation of a curriculum
This circle makes the link between the planned curriculum (A) and the aligned curriculum (C). It investigates the way the intentions are realized. In an empiric way the planned curriculum can be seen as a proposal that can be tested by gathering evidence on students’ learning experiences (Stenhouse 1975). Alumni can be asked if and in what way the planned learning outcomes were realized in the curriculum. In a similar way, faculty teaching in the Master program can appreciate the level of incoming graduated Bachelors. This circle focuses on the curriculum as a process (Stenhouse 1975). It is about how students experience the sequencing in the learning process and assess the (learning) strengths and weaknesses of the program of study. A curriculum map is a useful tool to demonstrate the link among learning outcomes and their realization in courses or course modules, learning opportunities and assessment. Curriculum maps allow identifying actual or potential deficiencies in the curriculum through consultation of different stakeholders.

C. The aligned curriculum
The aligned curriculum consists of all courses of the curriculum which are ordered in a certain sequence (in function of content and capacity building, in years or semesters or phases of time) and are structured in core courses (obligatory), in optional modules or as elective courses. This reflects a progressive curriculum (Knight 2001). Skills and attitudes need to be acquired through different courses with an ever increasing complexity. In a coherent curriculum learning trajectories indicate how students transfer learning and deepen their understanding going from one course to the next. Alignment between courses is necessary to balance teaching, learning and assessment strategies in such a way that the intended learning outcomes can be realized (Litzinger et al. 2011).

D. The aligned course
This quality circle is reflected in the scheme for instructional design, which was first described by Elen (2002). As he mentioned it “is a general concept that promotes if-then reasoning’s” focusing the instructional design process on the constructive alignment (Biggs 1999, Fink 2003) of the different components of a course (learning objectives, learning activities, student characteristics, evaluation strategies, the learning environment and context). In an effective educational setting these components are coherently and consistently implemented and aligned to each other.

Actors acting on the curriculum
Although the scheme itself does not focus on the actors involved, several stakeholders are connected to the curriculum and integrated in the scheme: researchers, alumni, employers and the society are represented on top of the scheme. These stakeholders will be consulted on their ideas, experiences and needs when the planned curriculum is discussed by teachers and students. On the other hand alumni will, when employed, further explore
innovations developed by research which they studied during the curriculum, in this way enhancing the society. Furthermore, students, faculty, teaching assistants engage in learning experiences throughout the aligned curriculum. They draw upon these experiences to rethink and optimize the planned curriculum (Oliver et al. 2008, O’Neill 2010). In this process of optimization, the role of the students is crucial: as they are the key actors in experiencing the program, their feedback on the different components and their relations is essential. Furthermore, program leaders and policy makers on all levels (departmental, institutional, regional, national, international) influence the planned as well as the aligned curriculum. They envision the contextual factors influencing the curriculum, manage the curriculum and plan and coordinate quality development initiatives.

**Evaluating the framework as a tool to discuss the curriculum**

The Academic Development Unit is verifying the face validity and the usability of the conceptual scheme for different stakeholders by using it in different educational development settings during the last four years. We have recently tested the scheme during a workshop on quality development of curricula where five program leaders and five educational developers were present (all from different disciplines). We concisely introduced the scheme and circles in a similar way as in this paper through a short powerpoint presentation. The participants were asked to analyse a curriculum related specific case or problem they were facing using the framework and they discussed their analysis with their peers. The different cases comprised revision as well as design and evaluation of curricula. They also made a SWOT analysis of the program they are coordinating or supporting in order to plan future development initiatives. At the end of the workshop, the 10 participants completed a short questionnaire on the usability of the scheme. The results are presented in the table below.

All of the participants find the scheme valuable and consider applying the scheme implicitly in their work. Most of the program leaders and educational developers agree that the scheme represents how quality development of a program can proceed. However some of them disagreed and even most of them would not use the scheme explicitly in their work.

The participants were asked to explain their answers when they scored 'strongly disagree'. Three participants explained that the scheme lacked information on 'how' to implement it but they confirmed that it was a good framework for analysing the curriculum.

<table>
<thead>
<tr>
<th>Table 1: Frequency table on the usability of the conceptual scheme</th>
<th>Strongly disagree</th>
<th>disagree</th>
<th>agree</th>
<th>Strongly agree</th>
</tr>
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<tbody>
<tr>
<td>The conceptual scheme is valuable.</td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td>6</td>
<td></td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>The conceptual scheme represents how quality development of a program could proceed</td>
<td>3</td>
<td>5</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>I consider applying this conceptual scheme implicitly in my work?</td>
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<td></td>
<td>5</td>
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<tr>
<td>I consider applying this conceptual scheme explicitly in my work?</td>
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<tr>
<td></td>
<td>7</td>
<td>3</td>
<td></td>
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</tr>
</tbody>
</table>

Eight participants also answered the question: 'Did the workshop help you to develop new insights that can help you solve the case or problem you were asked to discuss?' Three participants answered that the scheme is a useful framework to structurally analyse a problem, case or curriculum reform. One participant gained more insight in the challenges the program is facing. One participant indicated learning some new elements (alignment with educational philosophy, learning trajectories of research skills, teacher appointment as an institutional resource). Two participants answered they already had a good idea on the solution before the workshop. One of them mentioned having received some additional tips on how to solve the problem. Two participants indicated they did not gain new insights because they were already familiar with the scheme from earlier development initiatives of the unit.

Despite the small sample of key stakeholders that were involved in this usability test, the results indicate that the scheme is a useful tool to gain full insight in the complexity of the
curriculum. However some of the participants expressed the need for additional information on how to implement the scheme and asked for a roadmap guiding them through the scheme.

**Scenarios for curriculum development**

As an answer to this need the unit is currently developing scenarios and exercises as an operationalisation of certain components and circles. In this way tools will be provided for program leaders and educational developers working on the curriculum. For example, in the case of a curriculum revision the following steps will be proposed:

- Revising the existing learning outcomes by consulting alumni, labour market, research community, students and faculty
- Mapping the new learning outcomes against the existing courses of the program (learning outcomes, teaching strategies, assessment)
- Defining the learning trajectories throughout the curriculum
- Discussing the gaps and overlap within one learning trajectory by teams of involved faculty
- Make the necessary adjustments in the structure, sequence of the program followed by adjusting the content, learning outcomes, teaching strategies or assessment of individual courses

Each of the steps is translated in a scenario in which it is indicated which stakeholders should be involved, which specific steps need to be taken and which strategies can be used, what questions need to be answered and what the output of the exercise can be.

These tools will be available to program leaders, educational developers, faculty and students. They will also be additionally introduced in future development initiatives with program leaders.

**Conclusions**

The Academic Development Unit of the KU Leuven developed a conceptual scheme that creates a common language and serves as a mindmap for all stakeholders working on curricula. The results indicate that the scheme is a useful tool to gain full insight in the complexity of the curriculum. However, although the scheme is confirmed as being valuable as a mindset for program leaders and academic developers, the usability of the scheme as a roadmap for curriculum development is limited. Therefore, the unit is currently developing additional scenarios and exercises as an operationalisation of certain components and circles. These tools will be provided to program leaders and academic developers. In future research the unit will investigate whether providing scenarios and exercises additional to the scheme leads to an improved appreciation of the scheme. Moreover the usability of the scheme will be validated by a larger number of program leaders and educational developers and by other stakeholders (faculty and students).

**References**


Davis BW (2011) A conceptual model to support curriculum review, revision, and design in an associate degree nursing program. *Nursing Education Perspectives*, vol 32, no 6, pp 389-394


Eisner, EW (1979) *The educational imagination: On the design and evaluation of school programs*, New York: Macmillan

Letchert, JFM (2004) *The art of curriculum development.* Enschede: University of Twente
Morcke, AM and Eika, B (2009) Medical faculty and curriculum design - 'No, no, it's like this: you give your lectures...'. *Medical Teache*, vol 31, pp 642-648
Prosser, M and Trigwell, K (1999) *Understanding Learning and Teaching; the experience in higher education,* Buckingham; Open University Press: SRHE
Stenhouse, L (1975) *An introduction to curriculum research and development.* London: Heineman
Tyler, RW (1949) *Basic principles of curriculum and instruction.* Chicago: University of Chicago Press
Rethinking the Conservatoire Curriculum

Professor Maggie Kinloch FHEA and Professor Celia Duffy
Royal Conservatoire of Scotland

Introduction
This paper outlines a presentation which will be offered at the QAA International Enhancement Themes Conference. The presentation will be delivered using the online presentation package, Prezi, and is largely narrative, telling the personal story of the Royal Conservatoire of Scotland's Curriculum Reform project. The current QAA Enhancement Theme, which runs from summer 2011 to summer 2014 is: Developing and Supporting the Curriculum

Our curriculum reform project began in 2008, and was therefore the conservatoire's own initiative, stemming from our desire to contemporise our curriculum so as to enhance the student experience and employability. However, when the Enhancement Theme went live in 2011 it was with genuine enthusiasm that we "embraced" it and allowed it to inform the journey on which we had already embarked. This journey was all about developing the curriculum and about building in the means of supporting it.

We began delivery of our new undergraduate curriculum in September 2012 and are reaching the end of the first year of delivery.

The Conservatoire: a definition
Traditionally, a conservatoire was a place where student musicians were taught the technical and artistic skills of playing their instruments. They were "filled up" with skills and would play on stages and concert platforms. Occasionally, that definition would stretch to including dramatic arts. Teaching methods were traditionally based on the master/student model and generally they would be based on one-to-one lessons. To be candid, at least in music, that model prevails today to a large extent.

The "stages" on which our graduates perform are very different today. A stage, a concert platform, the street, hospital wards, television and cinema screens, prisons, board rooms, the factory floor, a digital video game and more, are today’s stages. The conservatoire for the 21st century had to be reinvented

Why Reform the Curriculum?
Our graduates of all of our disciplines are entering a world of work which demands interdisciplinary collaborators, articulate and socially-engaged artists, self-starting innovators and flexible team-players. Further, they must be ready to work on any "stage" which is offered to them. Recently, for example, the National Theatre of Scotland toured a company into primary school classrooms; the company toured Scotland by bicycle, in support of the environmental theme of their show, The Last Polar Bear. These artists were skilled actors, stage managers, directors; and they were engaged with the sustainability agenda, demonstrating this commitment to their art by agreeing to the cycle tour.

Our pedagogy had to be re-examined. The traditional, mono-discipline approach was no longer fit for purpose. Inter-disciplinarity, and collaboration lie at the heart of the work of contemporary performing artists.

The performing arts are, by definition, a collaborative art form. As the only conservatoire in the UK to offer the full range of performing arts disciplines (drama, dance, music, screen and production), one of our main drivers was to create opportunity for collaborative, interdisciplinary working.

Further, as clarified above, we sought to recognise that the profession has evolved since traditional conservatoire education was first designed.

How would we reform the curriculum?
Our aspiration was huge and meant that: we must first develop our staff to equip them to be effective contributors to the process we would have to create a new academic framework onto which all of degrees would be built
we must create systems and processes which would monitor, evaluate, support and enhance our evolving new curriculum, our staff and our students.

we must identify from the outset a set of curriculum principles which would inform everything we would do

a root-and-branch reform of our entire undergraduate provision would have to be undertaken we would have to ensure "buy-in" from staff, students and professional artists and employers, by engaging them in the process; we must be genuinely consultative our nine degree programmes would have to be analysed, dissected, challenged and ultimately reformed

we would have to allocate people, time and money to this project we sought to ensure that inter-disciplinarity and collaboration were at the centre of the curriculum

**Staff Development**
The teaching staff in a conservatoire are all experienced artists. Musicians, dancers, designers, directors, choreographers, composers, technical theatre experts - all of our staff have earned their stripes. Some of them were good teachers by chance, a tiny number were good teachers because they had trained as teachers, most had no training as teachers and certainly no experience of, nor training in, programme design. Before we could begin our Curriculum Reform project we had to develop our staff.

In 2008, we commenced delivery of our own Postgraduate Certificate in Learning and Teaching in Higher Arts Education. In 2013, we have over 40 graduates, a current cohort of 12 and a waiting list of staff. All new staff are required to undertake the programme, and a large number of existing staff, who were not required, chose to do it. This has been transformational, and has equipped our staff to engage in high-level discourse about pedagogy, the student learning experience and programme design, and it has enhanced their teaching skills immeasurably. In turn, this has enhanced the student learning experience.

The programme is now being developed for delivery to our academic support staff and to colleagues from other institutions.

Perhaps the biggest single act of staff development however has been the Curriculum Reform project itself. By engaging with the project, staff have learned, mentored each other, and been supported by senior colleagues. The quality of discourse about Learning and Teaching, and about programme design has been hugely enhanced.

**A new Academic Framework**
Before we could design any new degrees, we had to design an undergraduate framework. This was approved by an external scrutiny panel in spring 2011. At that point, our programme design teams could then begin the process of designing the new degrees within that framework.

The Framework covered every aspect of our activity including:
- Curriculum Principles
- Scope and Purpose
- Management of the Academic Framework
- Learning, Teaching and Assessment Philosophy
- Common Assessment Scale
- The Curriculum Model
- Level Descriptors and Graduate Attributes
- Undergraduate Programme Structure
- Learning Contract
- The Structure of the Academic Session
- Trimesterizing the Academic Session: Evolution and Context
- The Transitions Process
- Permitted Patterns of Module Delivery
- Weekly Timetable Zoning
- Programme Management
- Quality Assurance Processes

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This stage of the work was detailed, careful and took much longer than anticipated, which led to a decision to extend the project by a full calendar year at that time. However, it was perhaps the most crucial phase of the project, ensuring as it did, that we had very firm foundations onto which we could build our new degrees.

**The Six Curriculum Principles**
In the early stage of our work, the University of Aberdeen generously shared their experience of curriculum reform with us. They were very clear that whatever we did we must stick to the philosophical high ground. We did this by creating a set of six curriculum principles at the earliest possible stage. The six principles which express our artistic and educational philosophy and values are that the Curriculum:

Develops excellence alongside high levels of reflection in all of our disciplines
Fosters the creative attitudes and skills needed for collaborative learning in and through practice
Enables students to take responsibility for managing and evaluating their own learning
Provides students with insight into a diversity of artistic fields and experience of what is required to succeed in their individual arts practice
Develops the ability to use theoretical understanding to inform practice and practice to inform theory
Enables students to make a contribution in the world as artists, educators, advocates and active citizens

**Root-and-Branch reform**
In 2006, the School of Drama had reviewed all four of its undergraduate degrees simultaneously so as to explore opportunities for collaboration. The School had taken the decision that it would start a blank page for each programme and redesign, finding the moments of commonality.
This exercise which was, in large part, very successful led to a new decision in 2008. We would reform every single degree programme across the conservatoire simultaneously so as to explore commonality and inter-disciplinary opportunities.
The resistance, built partly on genuine philosophical difference of opinion, partly on fear, partly on doubt and largely on a belief in the old ways of doing things, was significant. Indeed, it threatened to derail the project before it had even begun. It was vital that we engaged our staff, our students, our graduates and our professional peers in a genuinely democratic and consultative process.

**Engagement**
We started from the belief that anybody who wanted to be involved, should be involved, and that they were the right people to do the work. Further, we assumed that people would engage and disengage at various times, and that this was fine and should be allowed for.
We developed a range of methods of engagement for all of our stakeholders, including: A "launch" Open Space workshop attended by about 150 people who were either teaching or academic support staff, students, graduates and members of the profession. This started from the big question, "What will the curriculum look like when it is reformed?"
A regular series of "Have Your Say" lunchtime meetings. Any member of staff or students could turn up and speak about what was concerning them or was interesting them. These were challenging and provocative sessions.
Fixed-life Task Groups made up of a mix of stakeholders.
Democratic facilitated workshops to deal with difficult questions which had to be resolved so as to make decisions about the new Academic Framework and curriculum.
When any member of staff or student was particularly vocal about concerns, they were immediately included in the membership of the Curriculum Reform Project Group (CRPG), a
steering group of staff and students who were driving the project. This allowed challenges to be heard and to inform the direction of development and decisions being made.

**Analysis and redesign of the 9 undergraduate degrees**
This was Stage Three of the project and was an immensely creative and stimulating time for the institution. Genuine cross-conservatoire dialogue was ensured by the creation of three working clusters, each containing two degree teams from the School of Drama and one from the School of Music. This meant that colleagues worked together and challenged each other's thinking.

In addition, throughout the design period, each team presented their work in progress three times to the Curriculum Reform Project Group. This meant that:
- They were required to focus their thinking
- They were challenged and supported in their work
- They were being given rehearsal opportunity for the actual validation event

Each team observed their cluster group member teams and were able to learn from that and to feedback

Our nine undergraduate degrees have now become ten.

**Resource: People, Time and Money**
Our institution is small and very specialist. Our capacity, in terms of time and people, to undertake such a major project was limited and we knew we must invest in order to enhance that capacity.

The Conservatoire Senior Management Team allocated a significant working budget to the project for each year of its work, and this allowed:
- Backfill to be paid for so as to release staff from some duties
- International advisers to join us for the task at key moments
- Education experts and peers to work with us

Curriculum Reform does not come cheap; however, the investment is modest when compared to the return in terms of the student experience and how it has been enhanced.

**Inter-disciplinarity and Collaboration**
When we were still known as The Royal Scottish Academy of Music and Drama, there was an in joke amongst students. To many of them we were the Royal Scottish Academy of Music OR Drama. They meant that you could only do one subject and never collaborate with peers from other disciplines.

Occasionally of course some students managed to “jump the fence”, but this was despite our curriculum, not because of it. In redefining the Conservatoire, we renamed ourselves the Royal Conservatoire of Scotland. Right at the heart of this is the desire to ensure that students can collaborate in an inter-disciplinary way, because the curriculum and the academic framework make it possible. We have built this into the curriculum in several ways:

- A core First Year module, worth 10 credits, for all students, irrespective of their programme of study. It is entitled Introduction to Collaborative Practice.
- An incrementally increasing amount of Choice credits throughout the remaining years of their degree.

Bridge Week, a non-assessed, student led festival of inter-disciplinary work

We are currently nearing the end of the first year of delivery. All first years have completed the new core module, we have delivered the first ever Bridge Week and students have all selected their Choice modules for their second year of study. All have already begun to have positive impact, and we fully expect that by the time we have embedded the full four years of the new curriculum we shall have a very different and very enhanced student experience, from where we first started.

**Conclusion**
By the time we complete this project it will have taken 9 years; the job is not over yet! In rethinking our curriculum, we still have much to do:
- Full embedding of the next three years of the undergraduate curriculum
- Ongoing monitoring, evaluation and evolution of the curriculum.
- A postgraduate Curriculum Reform project commencing in June 2013, and due to be complete by September 2015
The Enhancement theme of *Developing and Supporting the Curriculum* has served us well and reinforced our own understanding of the need to develop and better support our curriculum. I suspect this work will be like the job of painting the iconic Forth Rail Bridge; as soon as we complete the job at one end we shall have to start all over again! I would suggest that such is the work of quality enhancement; we can never be complacent, we can never stand still and the job is never done. Enhancement is a dynamic, challenging and essential activity.
Being Irrelevant: A model for developing interdisciplinary teaching and learning

Jonathan Baldwin
University of Dundee

Abstract The issue of relevance in the curriculum tends to focus on perceived gaps between academic and industrial views of a discipline. However a second gap is also present: between the discipline (whether industrial or academic) and the students’ own social context. Addressing a subject from a student’s own context may help to develop a deeper engagement with a topic that meets both "real world” and “academic” requirements. This could be viewed as “deliberate irrelevance".

At the University of Dundee the traditional undergraduate historical and theoretical modules were developed to approach the study of design from a social context and resulted in students embarking on self-directed research often outside their own disciplines, but developing high-level skills that were then taken back in to the studio. This paper presents an overview of the theoretical underpinnings of the model and suggests a method for developing interdisciplinary modules.

Industrial conceptions of relevance

On-going debates in design education have focussed on a perceived gap between the curriculum and "real world" relevance. This in turn highlights a lack of agreement about the type of skills sought by employers: strategic thinking and leadership("high-level skills"), or technical skill. Depending on whom you listen to, the notion of "relevance" differs greatly. There seems, however, to be a certain consensus that the typical design curriculum can be (and needs to be) fixed: there are certain things that "must" be covered and certain things that "must" be preserved, including traditional skills rarely practiced in modern business. However, things move on and new technologies and techniques develop, and these need to be covered too. The result is an increasingly crowded linear curriculum progressing from novice to expert that makes perfect sense to the people who created it, but little sense to those who are studying it.

Attempts to write down the ideal curriculum often result in lengthy "tick box" lists for courses to follow. The National Occupational Standards for are a good example of this. "National Occupational Standards (NOS) are statements of the standards of performance individuals must achieve when carrying out functions in the workplace, together with specifications of the underpinning knowledge and understanding." (National Occupation Standards, 2012). NOS exist for many areas, including textile and materials design:

"The Textiles and Materials Standards […] provide a clear, up to date description of what an individual needs to be able do in order to perform a job successfully. The Standards have been developed over a number of years by both people who work in the industry and experts from each occupational area through a process of investigation, analysis and consultation with a wide range of people." (Emphasis in the original) (www.skillset.org/standards/standards/TextileDesign/)

The purpose of this paper is not to discuss the appropriateness of such "standards" but to question their effect on curriculum innovation. If such standards are used as checklists to develop curricula, there is a danger that anything that does not appear on the list will not be taught (by definition, it is "irrelevant" and not what industry wants). This creates an immediate tension between such curriculum-led approaches to teaching (creating a list of topics and working through them) and alternative research-led approaches to teaching (guided by current developments in the discipline). Similarly, there is a potential effect on innovative approaches to teaching, as any approach that does not appear immediately relevant to the list will be halted. Research in to surface and deep learning tells us that the more closely we stick to such lists ("box ticking" as it is known) the less likely it is that students will learn to connect or, worse, create knowledge and skills through experimentation, adopting a unistructural approach to learning that is rooted firmly in the
context of the situation. The knock-on effects on employability suggest this approach is likely to have the opposite effect to the one intended.
The limited, but "relevant", curriculum
The curriculum suggested by schemas such as the NOS appears to be extensive. However, there is much missing. The textile and materials design NOS has no mention of electronics, and only two mentions of "digital", albeit in rather limiting terms. Any course covering such things as programming languages or wearable technology is venturing in to the "irrelevant". National Occupational Standards reflect a rigid view of the current realities of employment in predefined roles. Other areas are missing too: foreign languages (though the phrases "Awareness of relevant national and international legal and regulatory requirements and constraints" and "Awareness of international product differentiation" appear eleven times each in the documents); Cultural studies (the only time the word "culture" appears is in Unit D8 - Undertake textile and material freelance work where it is in the decidedly non-international context of "Organisational cultures and ways of working". Yet these areas (international contexts, languages and understanding of culture) are mentioned in the Design Council/Creative and Cultural Skills document High-Level Skills for Higher Value (Creative and Cultural Skills/Design Council, 2006). Clearly these competing yet supposedly "industrial" views are incompatible when designing curricula. Which to listen to?
Why this approach is wrong
At a fundamental level it is clear that the authors of the NOS believe that textile design is simply a matter of following routines that can be reduced to simple lists of skills and processes. Design is seen as a technical profession rather than one that is complex, messy and strategic. Technical skills are seen as the ingredients required to meet client or management demands, rather than the basis of a core of "practical wisdom", allowing the "exercise of professional judgement" (Fish & Coles, 2005).
Research in to the varying conceptions of teaching held by academics suggests two main categories of approach: teaching as information transmission, and teaching as supporting student learning (see for example Martin et al 2000; Prosser, Trigwell and Taylor 1994; Kember 1997). A similar model sees the teacher's role as either filtering or supporting students - the former presents the teacher as being the "gatekeeper" who only lets those with the right knowledge, skills and aptitude enter a profession. This conception, and the idea that teaching is simply the transmission of information, fit the approach that industry appears to want us to take. At the same time, pressure from government (especially with the imposition of Key Information Sets with statistics on employment success and graduate salaries) threatens to push courses in to approaches that offer guarantees and fit with a nationally approved curriculum.
There is a certain level of attraction to the idea that a course should be easy to describe and assess. External pressures from industry bodies, government and students "shopping around" and wanting easy checklists to compare courses mean content-based approaches to curriculum development have a strong appeal even to those who want to offer something more challenging.
There is a danger that approaches like the UK's NOS, if used for the purpose of course development or evaluation, threaten innovation and experimentation within the design curriculum, and that even if they only are used as a baseline they are so numerous that they leave little room for other topics, something that has been identified as an issue in other disciplines such as law, engineering and architecture where the external requirements are seen as onerous and often out of date.
Student conceptions of relevance
When students choose to study a topic it is generally assumed, or at least hoped, that they will be interested in it, and not question why they are being taught it. It is, some might claim, a student's role to fit in to the existing context and understand how the discipline works, from both an industrial and academic context. There is little need to explain to students why they are being taught something.
However, the will to learn is tested by the common fixed approach to curricula. As Bruner put it (Bruner, 1966):
The will to learn becomes the problem only under specialized circumstances like those of a school, where a curriculum is set, students confined and a path fixed. The problem exists not so much in learning itself, but in the fact that what the school imposes often fails to enlist the natural energies that sustain spontaneous learning. (p. 127)

In other words, while many academics might complain that students do not possess the will to learn, the key contributor is the curriculum with which they are presented: rigid, imposed curricula oppose the intrinsic will to learn, which is motivated by a sense of discovery and serendipity. Regulated curricula suit those whose only desire is a qualification, rather than a challenge. And this is not in the interests of those who employ graduates, nor those that teach them.

The approach taken by some in industry and government appears to be limiting and demand-led: get students to choose courses based on their adherence to "industry approved" standards. But this approach arguably lowers student engagement and is extrinsic - you are learning something because someone in industry says you must.

Social relevance

Industrial Focus

Academic Focus

Figure 8: The relevance continuum

Debates about design education emphasise an apparent tension between an "academic focus" and "industrial focus" - the suggestion from organisations such as Sector Skills Councils and the UK government being that universities should realign towards the latter "correct" view.

An academic focus emphasises research-led approaches, questioning conventions, discovering new knowledge, looking to the future, cross-pollination with other disciplines, and learning for learning's sake. An industrial focus emphasises skills used in existing occupations, tradition and history, starting at the bottom, learning for specific outcomes (a so-called "instrumentalist" view of education).

Seen in this way, design education occupies a continuum with programmes positioning themselves somewhere between the two extremes (Figure 8).

This paper proposes a third area of relevance that provides a bridge between the other two: relevance to students' own lives. It is only through understanding their own context, making sense of who they are and where they came from, that students can develop clear goals in life which may, or may not, relate purely to desired careers. And it is only through contextualising knowledge through their own experience that they can connect knowledge gained in education with knowledge applied in employment - and go beyond it. The purpose of education after all is, arguably, not to serve employers or the economy, but society and individuals. They in turn provide the demand for industry, and the imagination and effort that industry needs to grow. To return to the NOS example cited above, a textile designer who could only do the things listed in the NOS might be an efficient producer of responses to client briefs, but they would hardly move the industry, or the world, forwards.

How social relevance affects learning

Studying the way in which children from non-English speaking backgrounds developed language proficiency, Cummins noted that "Conceptual knowledge developed in one language helps to make input in the other language comprehensible." (Cummins, 2000). This has a simple, but profound implication. Language is not just a collection of words and structures, but of concepts; the words are simply labels for those concepts. It is easier to learn the word "justice" if the concept is already understood; otherwise the student has to learn not only the label, but the concept too.

Cummins devised a graphical model (Figure 9) to allow us to categorise the tasks and demands being made on students. Here the "context" relates to how abstract or otherwise a learning situation is.

A context-embedded task is one in which the student has access to a range of additional visual and oral cues: for example he can look at illustrations of what is being talked about or
ask questions to confirm understanding. A context-reduced task is one such as listening to a lecture or reading dense text, where there are no other sources of help than the language itself (Shoebottom).

![Diagram: Cummins's graphical model of context]

Figure 9: Cummins's graphical model of context

Cognitive difficulty
Learning a word is cognitively undemanding (it simply requires memorisation and practice), but learning the meaning of the word, when and how to use it, are cognitively challenging. The principle applies to all disciplines: learning terms and techniques is less demanding than learning how and why to apply them with some mastery. This again illustrates the problem with "industry relevant" curricula: the focus is on the "extrinsic technical" aspects, learning for approval by others, rather than the richer "intrinsic meaning", learning for self-fulfillment.

The challenge for the teacher is to move students from "exterior" conceptions to "interior" ones. On Cummins' model we could view this as analogous to moving from "undemanding" to "demanding", while at the same time relating the subject being taught to the context in which it is being learned, i.e. the student's own social context. The point being that there is more than a shift from "easy" to "difficult" in the learning process, and that the nature of the cognition is different - from mere replication and reciting of skills, techniques and knowledge to satisfy external requirements to unconscious mastery and synthesis of new skills, techniques and knowledge that make sense in one's own world.

Context
Most curricula place an emphasis on teaching things that are relevant within the context of the discipline (learning labels, skills, histories etc). The context (or "relevance") we need to focus on in learning is the social context of the exercise, or how it fits in to the student's own view and experience of the world.

How does this apply to design? Frequent visits to art galleries or the ability to name well-known designers are good examples of how disciplinary context is used as a filter at the application stage on some programmes, even though it depends on things such as geographical location (what do you do if there are no galleries near you?) and socio-economic context (there is a correlation between "class" and access to or value for the arts). This contextual requirement continues throughout the curriculum, and new ideas, skills and knowledge are introduced without much attempt to provide any social context for the students; instead the focus is on the disciplinary context.

Cummins's model emphasises that things encountered within the learning context (i.e. the classroom or studio) only have effect in that same context. We are able to decline the verb "to go" in French to pass the exam, but largely unable to take what we have learned into the world beyond the classroom. We are able to perform certain manoeuvres in order to pass our driving test, but soon resort to "wrong" behaviours the moment we are no longer learning.

The vital context is not the classroom nor the industrial context (that is still extrinsic) but the world in which students live. It is the social context that matters.

It is possible to view social context (the student's view of the world) and the disciplinary context (the discipline's view of the world) as points on a continuum and to redraw Cummins's model with this change in mind (Figure 10).

Example: teaching social typography
Typically we introduce students to their discipline or topic via an "easy" route - we begin simply. In typography, for example, one approach might be to give students a sheet of characters and some tracing paper, and ask them to trace the characters and label the different parts of their anatomy - counters, descenders, serifs etc. The aim of this is to help students learn how type is constructed and the basic terminology. As their learning progresses they may set bodies of text, so demonstrating understanding of leading, paragraph spacing, baseline grids and so on.

![Anatomy of type](source: www.rsu-design.com/?p=858)

At the end of the module they may create a double-page spread, incorporating some images and different page elements such as pull quotes, subheadings and headings. They may also be expected to demonstrate not only mastery of a computer program such as InDesign, but some element of creativity in their use of type.

**Figure 12: Teaching type in a disciplinary/industrial context**

The curriculum plan for the module progresses from "easy" to "difficult" - learning is linear, from novice to expert (or at least better-than-novice) - and the curriculum itself is entirely "relevant" to the context of typography (Figure 12).

But have the students really learned anything? Experience suggests not: a module observed that followed this very simple approach had the highest failure rate in a whole programme, and even those students who did well did not seem to carry forward what they had learnt in to other modules. Once they were not being assessed on their typographical abilities, their skills in the area seemingly disappeared.

In contrast, students interviewed at a USA university majoring in creative writing, illustration and photography were studying a typography unit as an elective, alongside students majoring in graphic design who were taking it as a compulsory component. Asked about their approach to the task they had been set (laying out text for a poem chosen either from a selection or provided by themselves) the students responded differently:

I looked in the folder of text we'd been given and found one I thought would fit my grid. Then I used the menu in QuarkXpress to place the text in the text box. [...] I chose a font I liked and then changed the leading and the space between the paragraphs so that it all fit on the page. Then I found a nice image on Google and added it to the top.

(Graphic design student)

I chose this course because I'm a writer and I wanted to understand whether I could tell my stories more effectively through the way they were presented on the page.
(Creative Writing student)
I wasn't sure what to study [for my elective] but this appealed to me because my work is usually seen with words. I find that the choice of typeface and the way the text is laid out on the page can really affect the way my work is understood and so things like the grid structure are important elements. In my photographs I try to compose the image. I want the page I design to be composed too.

(Photography student)
It is clear the graphic design student is "learning" within the disciplinary context. He has been set a task (design a page layout for a poem with an appropriate image) and is going through it methodically, following the instructions to learn the process.

The other students have elected to take this unit as a way of deepening their understanding of how their work is communicated to others. Neither wanted to be a graphic designer, but they wanted to understand how graphic design supported or detracted from their work.

Within the short conversations it was clear they had a deeper understanding of typography and layout than the graphic design student and in taking the elective had also reflected back on their own practice as writers or photographers.

One group is "learning to do" while the other is "learning about" type. The key difference is the latter group is also "learning to do" as a side effect.

An alternative curriculum model (Figure 13) to the one described above might begin with students collecting examples of type from their favourite brands, music, shopping expeditions and so on. Looking at these examples and considering the "personality" of the type, the message it is sending or reinforcing, would begin to link the choice of type to the concept of branding beyond the logo. Looking for common elements in the type or points of difference would also introduce the idea of the anatomy of type forms. So far we are firmly in the bottom left hand quadrant of the chart - this stuff is easy and within the students' own context but as we begin to talk about "personality" and "branding" we are moving upwards, cognitively. Introducing discussions of layout, looking at magazines and newspapers will add to the discussion but we have to remember something here: our (teachers') experiences are not the same as those of ordinary people. Graphic designers talk about type and experience it in ways that normal people don't and, for now, our students are closer to "normal people" than they are to us. So instead of making them study something they are not involved in, turn instead to how normal people experience type. Look at the many ways in which people see text: on screen, on packaging, in magazines, in print. Begin to consider the way these things are laid out - the difference between The Sun and The Guardian, for example. What does their layout say? How is that difference translated to their websites or iPad apps?

![Diagram](image)

Figure 13: Teaching type in a social context
We are now firmly in the upper left-hand quadrant. Still in the students' context but wider, looking at the people they know and the people they don't know. The people, in fact, for whom, and with whom, they are going to end up designing. The concepts they are being asked to consider are more challenging but still "relevant" to them, and they are probably beginning to consider things they previously took for granted or ignored. An important aspect of design has now been revealed to them and chances are it is interesting.
Now we can move to the right. The students are ready: "How do I do this stuff? I want to do this!" Or, to put it more formally: students are engaged and as we move in to the discipline-relevant area of the module they have a goal, something to aim for: an audience to design for, a theory to test out, a model to work to. Grids are no longer a concept, they are a tool. Kerning and leading are not just ideas, they are real things. A typeface is not just something you choose because you like the look of it, but something that has a personality. It says "celebrity gossip" or "sober reflection".

What is noticeable in this approach is that the bottom right hand quadrant is untouched. **Things that are undemanding and lack contextual relevance are not worth doing.**

However it is this area that leads to the greatest friction between this approach to learning and traditional approaches which focus on the accumulation of key and "relevant" skills and knowledge.

Case study: Teaching medicine socially

The discussion so far has focused on design education. It is proposed that the model can be used as a basis of interdisciplinary education in which students from various disciplines work together to understand a problem and use that deep understanding to develop conclusions within their own discipline.

As a theoretical example, let us take a seemingly discipline-focused topic: blood pressure. If teaching medical students about blood pressure, it would be easy simply to teach them how to measure and, where necessary, treat blood pressure. This would keep it relevant, focused on what is needed and on required outcomes.

A short course would start by showing students how to measure blood pressure and what constitutes a safe result. By the end of the course the students would know what pills or other treatments to prescribe in certain situations. This course is illustrated graphically in Figures 14 and 15.

![Figure 14: Teaching medical students about blood pressure](image1)

![Figure 15: Teaching blood pressure as a social issue](image2)

To a student, academic or other professional who believes the curriculum should focus on "relevance" this would be an ideal way of teaching a clearly identified set of skills. However, this is not very useful or particularly interesting. The knowledge is confined to one particular circumstance: measuring and treating blood pressure. There is little that can be transferred in to other situations, and little in the way of depth of understanding. It is training, not education.
Moving the course in to a social context we get a situation as in

Figure 15.

Towards interdisciplinarity
There are three main causes of high blood pressure: genetics, lifestyle and primary conditions such as diabetes. Understanding who is at risk due to their lifestyle is important in preventing high blood pressure, which is preferable to treating it after it has developed. Focusing a course on the social factors, and seeing medicine as a matter of prevention rather than treatment, is an approach that has immediate links to many other areas of medicine and beyond. Bringing the course to focus on a disciplinary context towards the end will make it directly relevant to the medical profession. As in the typography example above, the low-level skills (measuring blood pressure and knowing what are safe figures) are not explicitly covered as an end in themselves, but students will learn them in the process of looking at the other areas. This is a direct challenge to the NOS-style approaches to curriculum development and an area of concern to many academics who fear that approaches that diminish "skills" will by their very nature produce unskilled graduates. This is not the case.

It should be admitted that the term "irrelevance" is something of a red herring. In the discussion above, most would see the approach as being directly relevant to medicine - but would not see it as relevant to, say, design.

But if we look at the boxes on the left hand side of the diagram, we see what is commonly referred to as a "design problem". In other words, the left hand side of the model offers enormous potential as a means of developing a truly interdisciplinary module/course while the right hand side (or specifically the top right quadrant) shows how interdisciplinarity can still contribute towards discipline-based learning and practice - design students would create a design-led solution to the problem, understanding of which was developed alongside medical students.

Summary
This paper has illustrated a theoretical framework for the development of interdisciplinary teaching and a challenge to conceptions about the nature of relevance. Industrial models of relevance in education focus on lists of skills, knowledge and attributes and these in turn are often used to develop curricula that are said to be "relevant". However the example cited, the National Occupation Standards for fashion and textile design, demonstrate a limited view of what designers can do, and a limited view of what courses in those disciplines should cover. They also fail to consider either the broader strategic needs of the industry or its clients, and the broader life and career goals of students.

A curriculum that approaches learning through students’ own social context offers an opportunity to frame skills and knowledge in a way that makes sense to students, and that allows the things that are learned to be transferred beyond the learning context. Learning in the social context, whether it is language, terminology, facts or skills, offers an opportunity to embed learning in to students’ everyday understanding. It also offers greater possibilities that this knowledge will be applied outside the learning context. Doing this opens up opportunities for truly interdisciplinary learning opportunities as the one thing shared by all disciplines is a social context. Specialism can come later.

Bibliography
From a multidisciplinary to an interdisciplinary curriculum: a case study of curriculum innovation
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ABSTRACT: The HE curriculum tends to be highly discipline-based, designed to deliver a set of subject-based outcomes. Research, on the other hand, is becoming increasingly interdisciplinary in nature, but learning and teaching often fails to keep pace. The University of Southampton's Education Strategy sets out an aspiration to transform education by providing a more flexible, personalised experience for students. This was embodied in a Curriculum Innovation Programme designed to expand choice for students whilst maintaining disciplinary rigour. This paper reports on this experience, exploring the steps taken to create space within a three-year undergraduate curriculum to allow greater freedom of choice for students. The initiative also entailed the development and promotion of a range of new interdisciplinary modules, and the paper outlines the process of change required for these to become embedded in the curriculum. Phase 2 of the programme is moving towards the introduction of a new layer of flexibility.

1 Introduction
The term 'curriculum innovation' encompasses many and varied aspects of educational practice and has been interpreted in different ways by different authors. What they have in common is a focus on the content and design of programmes of study and recognition of the need to adapt to an ever-changing external environment that shapes the aspirations of students following those programmes.
Curriculum innovation is also about the willingness to embrace change and to recognise the opportunities offered by burgeoning educational technologies and the changing landscape of academic research. Attempts to foster a climate of change will almost inevitably face some resistance within institutions in which there is a mixture of deeply-embedded views and attitudes towards higher education and its objectives.
This paper explores one dimension of curriculum innovation: examining the way in which a research-intensive university set about introducing choice and flexibility into the curriculum in order to transform and enrich the student experience. The discussion is based around a case study of experience with the Curriculum Innovation Programme at the University of Southampton (UoS).

2 Curriculum evolution
Today's curriculum is very often seen to be the result of a gradual process of evolution over time, punctuated by the periodic review process. Changes that are introduced may reflect a reaction to perceived need or opportunity. However, full-scale institution-wide innovation requires a proactive and radical attempt to inject change, and is likely to entail strategic intervention at institutional level to initiate and support a programme of enhancement.

2.1 A disciplinary curriculum
The curriculum in higher education (HE) has traditionally been discipline-based. Students enter HE in order to study a discipline, and the curriculum is primarily designed to deliver what is needed for students to become doctors, engineers, lawyers, historians or chemists. Some students may get the opportunity to study joint, or combined, degrees, which expose them to more than one discipline. However, a joint programme is often seen as a degree of two halves, and thus multidisciplinary in nature, rather than being fully integrated, or interdisciplinary.
This disciplinary view of the curriculum reflects the notion of curriculum as product (Fraser and Bosanquet, 2006), which sees the design of a curriculum being dominated by the need to deliver a compendium of disciplinary knowledge and approaches. This focus on the delivery of content may lead to a perceived need to 'cover' a specified set of outcomes within the curriculum. This can then become a straitjacket that inhibits innovation. It may also lead to a preoccupation with modes of delivery and assessment, rather than on education in its broader sense. In turn, this may lead to a compartmentalisation of learning and to
emphasising the need to "get through" the necessary subject matter. Students become trapped in subject silos, and may become preoccupied with outcomes, rather than being exposed to new and different ways of thinking.

This approach to the curriculum is reinforced for programmes with strong accreditation requirements from professional bodies, where again the focus is likely to be primarily on curriculum content. Accreditation requirements set constraints on curriculum content, and may make it more difficult to introduce innovations in content.

2.2 Curriculum drift
Within this approach to curriculum, there can be gradual slippage over time - a process that could be described as curriculum drift. As the lexicon of knowledge within a discipline expands, so there is pressure to add to curriculum content. In addition, when new staff are recruited there is a tendency to add new modules into the curriculum to reflect the research interest of new academic staff, and to reinforce research-informed teaching. Coming from a different angle, there has been much discussion about the content of A-level specifications (e.g. in Mathematics), alleging that content has been diluted over the years. This also puts pressure on curriculum content if it is perceived that the HE curriculum has to remedy the deficiencies of pre-University education. Whether this is or is not the case in reality, the perception that it could be puts pressure on curriculum content for HE. This combination of factors results in increasing specialisation of the curriculum as it evolves through time, and less opportunity for students to exercise choice within the curriculum structure.

For students who wish to follow an academic life-path, this disciplinary focus may meet their aspirations. Indeed, in many cases the curriculum seems designed to produce graduates from undergraduate programmes who are ready for postgraduate programmes that will take them on to doctoral studies. However, this is not necessarily the curriculum that is most suitable for all undergraduates. Not all students of history become professional historians, nor do all chemistry graduates follow a career path that rests heavily on their specific disciplinary knowledge. The curriculum also needs to prepare students for life after HE. This is a contentious area, and it is of course important to maintain a balance between curriculum content and horizon-broadening initiatives. This will require decisions to be made about where to draw the line between the curriculum and the co-curriculum.

2.3 Interdisciplinarity
In contrast to the increasing disciplinary specialisation of the curriculum, academic research is becoming increasingly interdisciplinary. Furthermore, graduates in the workplace outside HE will almost invariably find themselves working alongside graduates from other disciplinary backgrounds. The typical undergraduate single-honours programme does not foster interdisciplinarity, and even joint/combined honours programme often only facilitate multidisciplinary learning, with only limited interaction between alternative approaches. There is thus an argument for introducing elements of interdisciplinarity into programmes, exposing students to different analytic approaches to global issues in order to prepare them better for life after university.

A key challenge is to find a way to open up opportunities for students to exercise choice within the curriculum and have the flexibility to engage in a learning environment that exposes them to the richness of interdisciplinary studies whilst maintaining the rigour that comes from in-depth study of a discipline.

3 Background to a case study of the University of Southampton
As part of the University of Southampton (UoS) Education Strategy, a Curriculum Innovation Programme (CIP) was launched in 2009 by the then-PVC Debra Humphris (Humphris, 2010). The objective was to extend student choice and flexibility in the curriculum by offering opportunities to engage with interdisciplinary approaches to learning and teaching.

3.1 The institution
UoS is a research-intensive university and a member of the Russell group, with 24,000 students, of which about 70% are undergraduates. The institution was restructured in 2011-
12 into eight Faculties\textsuperscript{18}, covering a broad spectrum of disciplines. This diversity of discipline areas is at once a strength and a challenge for institution-wide curriculum innovation. Teaching takes place in four campuses in Southampton and one in nearby Winchester. The physical separation of the Faculties poses an additional challenge for bringing students together for learning. The diversity of the institution is a strength because it offers the opportunity to bring together students from such a wide variety of backgrounds and disciplinary approaches. The scope for students to learn from each other whilst expanding their horizons is potentially huge. However, this also raises some significant practical problems. In particular, module leaders need to be constantly aware of the diversity of their students, in terms of experience and familiarity with different forms of assessment. An engineering student may have less experience of writing essays than a history student, but would be more familiar with statistical or mathematical approaches. Furthermore, the challenge of building a workable timetable becomes exponentially more problematic the more programmes are represented on a module.

3.2 The drivers for curriculum innovation

During the late 2000s, UoS was developing a conscious strategy of fostering interdisciplinary research, bringing together researchers from across the faculties to pool their expertise in tackling issues of global significance. It was natural to want to communicate some of the excitement generated by this process to students, who were often perceived to be trapped within the confines of their own subject areas. This was reinforced by the appointment in 2009 of a new VC keen to see students becoming engaged beyond their disciplinary silos. This approach was further supported by reported comments from employers about graduates from UK universities, that they were often well trained in the rigours of their disciplines, but less confident when pushed beyond this comfort zone. In addition, there was an awareness of the changing tuition fee environment, and the responsibility to provide graduates with a headstart in their life beyond university.

Students were engaged with the curriculum innovation initiative from an early stage. There was frequent contact and discussion with the Student Union, and student representatives contributed actively to the steering group and to discussions about new modules. Discussions with other institutions thinking in similar ways (notably the University of Aberdeen, which was already moving in this direction) encouraged UoS to develop its thinking about how students could become engaged beyond their own subject areas whilst maintaining the benefits of studying a discipline in depth.

4 Constraints and prerequisites

In order to have students engaging in interdisciplinary learning, there are a number of key prerequisites. For a start, there need to be interdisciplinary modules available for students to study, and it was decided to commission a number of such modules from across the institution (‘CI modules’). An early key decision was then whether such modules would be part of the curriculum, carrying credits, or whether they should sit alongside the main curriculum. There are models, such as the LSE100 (LSE, 2012), that provide inter- or cross-disciplinary modules that do not carry credit, but at UoS it was decided that the CI modules should be embedded within the curriculum, and should carry equivalent credits to subject-specific modules.

This decision imposes two further crucial prerequisites for curriculum innovation. First that students should receive equal credits regardless of their programme of study, and second, that they should be able to achieve their programme learning outcomes in their discipline in a subset of their modules, thus leaving space for interdisciplinary studies.

4.1 Curriculum architecture

For students to gain equal credits from the CI modules, a consistent credit architecture is needed for all participating programmes. At the time of launch of the programme, this was far from the case - the then-PVC likened the situation to a dry-stone wall, in which modules

\textsuperscript{18} Business & Law, Engineering & the Environment, Health Sciences, Humanities, Medicine, Natural & Environmental Sciences, Physical Sciences & Engineering, Social & Human Sciences.
of various credit ratings were meshed together to create the whole, in a sometimes uneven pattern. At this time, there were modules being taught in the University ranging in size from 2.5 to 30 ECTS. After some debate at Senate, it was agreed that all undergraduate programmes would be restructured on to a consistent architecture in which modules would be of 7.5 ECTS or multiples thereof. This required some Faculties to undergo a substantial reworking of programme structures in order to come into line. The typical undergraduate (full-time) programme is thus composed of eight modules per year. This pattern is currently being phased in year by year in some Faculties that needed to restructure their programmes.

With CI modules carrying credit towards degree results and classifications, it was essential to ensure that there was a quality assurance mechanism in place to ensure standards were appropriate. Another early decision was that each module should be 'owned' by a faculty, which would be responsible for administrative arrangements for the module, and for oversight through relevant external examiners.

4.2 Making space
The next step was to ensure that programmes could accommodate modules within the curriculum whilst still delivering the programme outcomes required to meet subject benchmarks. This was already possible in some programmes, but others required adjustments to be made to content and structure.

An additional complication thrown up by this process was that different programmes had space available for free elective options at different stages. In some disciplines, freedom to select free electives came in the first year of the programme, whereas in others this freedom was not possible until the third year (or even the fourth year in the case of some integrated Masters' programmes).

In order to cope with this, it was decided to take advantage of the QAA guidance (QAA, 2009) that an honours degree requires 45 of 60 ECTS at FHEQ Level 6 (similarly at levels 4 and 5). By setting the CI modules at FHEQ level 5, maximum flexibility could be achieved, by allowing students to forward and backtrack for the CI modules, whilst continuing to accumulate sufficient credits to meet their programme outcomes.

4.3 Financial considerations
The CI project was successful in harnessing the enthusiasm and inventiveness of individuals willing to devote time and energy to enhancing the learning experience of our students. However, the importance of financial incentives should never be underestimated. For curriculum innovation to be successful, these incentives must be appropriate at two levels. First, there need to be incentives to encourage individuals and faculties to devote resources to developing new interdisciplinary modules. Second, there need to be appropriate financial flows to compensate faculties in the delivery of the modules.

Funding was provided for the development of the CI modules, with bids being made to a central fund made available for this purpose. However, for the programme to be sustainable in the long run, the funding for delivery needed to be secure into the future. The funding mechanism for modules was thus reworked to ensure that there was a flow of funds to faculties responsible for delivering the CI modules.

4.4 Timetabling
A major constraint to be faced was to ensure that the timetable could accommodate the variety of choices open to students. Room space has been an issue for the UoS in recent years, and there was much scepticism from staff across the institution that it would be possible to free up choice for so many students without prejudicing the timetable for core programmes.

Rather than opening up all possible modules to all possible students, attempts were made to identify priority modules for each participating programme. Programme leads were asked to select the modules most likely to be of interest to their students, and a menu was created for each programme. These modules would be prioritised in building the timetable, and students wanting to take modules not on their own menu would be permitted to choose other modules only if their timetable permitted. UoS operates a central timetabling system, and in the event the timetable was able to cope.

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Creating choice: phase 1 of the programme

Having established the necessary framework to allow students to begin to look beyond their disciplines, steps were taken to put the plans into effect. Expressions of interest for the development of CI modules were issued to all Faculties, and work was undertaken to identify programmes whose structures were already able to accommodate free elective modules. A steering group was established to oversee the development of CI modules. This involved students, academic staff and representatives of the professional services. The new modules were expected to fulfil a set of criteria reflecting a range of dimensions of innovation. This was to encourage approaches to learning and teaching that embraced good practice. In addition to being innovative in content, CI modules were expected to be innovative in delivery and assessment, to include a global dimension wherever possible, to require no prerequisites and to be accessible to students across a range of disciplines. A small sub-panel (including a student representative) evaluated the bids and provided feedback on the applications.

Drawing on expertise across the institution, a series of workshops were organised for module teams to introduce and spread good practice. A critical friend was assigned to each module, reflecting their particular needs for advice and guidance. In particular, attention was focused on the possibilities of innovation in modes of assessment, with workshop sessions organised to spread good practice and to reduce the dependence on the traditional unseen examination.

Emphasis was also placed on the introduction and use of technology in the delivery of CI modules. Developments in this area were reinforced by the establishment in 2012 of the Centre for Innovation in Technologies and Education, which brings together teams from across the University with expertise in technology-enhanced learning. This ensures that those working on materials for new CI modules have access to advice, guidance and best-practice ways on enhancing the learning experience through the use of technology. A number of CI modules are now being considered for development as MOOCs.

Having identified the programmes that could accommodate CI modules, a communications plan was developed to contact academic and administrative staff and to inform the students about the new initiative. This entailed building a clear website (www.southampton.ac.uk/cip), with module information and videos to introduce each of the modules. A series of meetings with key academic and administrative staff were held to explain the plans. A module fair was held to provide information to students through the medium of posters and the opportunity to meet and talk to module leaders. Much of the success of the initiative to date rests on the effectiveness of this communication.

In the first year of implementation, five new modules were provided. 124 students from 11 programmes enrolled and completed the modules. These included modules involving partnerships that crossed Faculty boundaries. For example, a module in Education for Health and Wellbeing involved a partnership between the Education School and the Faculty of Medicine; Global Health involved an interdisciplinary team and specialist guest speakers (including the Vice Chancellor); Living with Environment Change was another cross-faculty initiative that drew on the expertise of experts from different disciplinary approaches across the university. The Management School and Geography respectively provided modules involving business simulation and design skills using internet mapping software.

A series of focus groups were held to evaluate the modules, together with the normal module evaluations undertaken for all modules. Students were enthusiastic about the content and delivery of the modules. In addition to the modules developed under the auspices of the project, students were encouraged to think of taking a single-semester module in a modern language, and the CI menu of modules also drew students’ attention to modules already provided by disciplines that required no prerequisites and were considered suitable for a non-specialist audience.

A second round of module development was initiated, with enthusiasm for the programme increasing. The number of programmes participating in the initiative increased substantially, although there were still some faculties where the restructuring of the curriculum was still in process, or where accreditation requirements remained an obstacle.
For the academic year 2012/13, 21 modules were available, attracting nearly 800 students. In addition, about 350 students took the opportunity of studying a language, and a further 350 took up a module that was outside their own disciplinary area. For 2013/14, a further 9 modules have been developed, and the range of programmes whose students can take part has increased further.

6 Creating flexibility: phase 2 of the programme
As the CI modules have become more deeply embedded, new possibilities for flexibility in the curriculum are beginning to open up. Programme specifications are focusing more closely on the way in which core disciplinary programme outcomes can be delivered efficiently within a subset of the modules that constitute an honours degree programme. In some subject areas, it has proved possible to ensure that the core content needed to satisfy national subject benchmark statements can be delivered in six of eight modules per year. This applies in particular to a range of programmes in the Faculties of Humanities and Social and Human Sciences.

This creates the opportunity to offer a continuum of flexibility of choice to students on these programmes. With the single honours outcomes being delivered in the core of the programme, students face a range of possibilities.

Students who wish to preserve a focus on their home discipline throughout their studies can use the non-core modules to deepen their knowledge and understanding of their subject. This route may be especially appropriate for those who intend to undertake postgraduate work or to become professionals in their discipline.

Students who wish to broaden their horizons can elect to take a combination of home discipline modules, CI modules, modules from other disciplines, or can choose to study a language. This would be especially attractive for students who wish to combine the rigour and depth of a single-honours degree with exposure to alternative disciplinary perspectives or the acquisition of attributes that enhance employability.

An additional layer of flexibility is added by offering themed groups of modules that build into a 'minor', which can become a named part of the degree award. A series of minors are being developed. Some of these are discipline-based, based on a combination of modules that introduce students to core aspects of the discipline and to modes of thinking within the subject area. Others are based around general themes, and foster interdisciplinary approaches to topic areas. Some minors are based on combinations of cognate CI modules. The modules that make up a minor are pre-specified in advance, and given formal academic approval within owning Faculties. In order to qualify for a minor, students must complete (and pass) a set of modules across the three years of their programme, choosing from an approved list. Qualification for a minor depends upon the range of modules that students have taken, but the decision to include the named minor within the award title is taken ex-post. In other words, the award of a minor is based on credit accumulation of the stated modules.

7 Summary
In reporting on a JISC project on curriculum design, Beetham (2012) indicates that: ‘The ultimate goal has always been to enhance the curriculum offer, making it more responsive to new markets and needs, more sustainably delivered, more flexible, and more attuned to the capabilities required by graduates in the 21st century.’ (page 3)

Innovation in curriculum design can thus be focused on many different areas, depending on the starting point for a particular institution. This paper has explored the experience of one institution and the challenges that it faced - and continues to face - in driving curriculum innovation. The particular path followed may not be appropriate for institutions that find themselves in a different initial position. However, there are some common themes to be highlighted:

**Strong leadership and support:** the initiative for curriculum innovation was embedded in University strategy and given strong support (including financial support) from senior management.

**Student engagement:** students were involved in discussions and engaged with the steering group for the start, and were consulted regularly through focus groups and surveys.
Planning and phasing of implementation: careful plans were drawn up to phase in the introduction of innovation so that it was based on solid foundations.

Incentives: it was recognised that the success of the programme rested on there being appropriate incentives in place for individuals to participate. A particular challenge was in the area of the financial model and workload management for staff to devote their time and energies to the programme. This remains a challenge in some areas.

Communication: having a communications plan and a team to implement it were crucial. The need to keep students, academic staff and colleagues in professional services was recognised from an early stage.

Perhaps most importantly, the curriculum innovation initiative captured the imagination of students and the enthusiasm of staff for enhancing learning and teaching and the student experience at a time when the HE sector was going through a difficult and sometimes traumatic period.

References
LSE (2012), LSE100: The LSE Course http://www2.lse.ac.uk/intranet/students/LSE100/Home.aspx
Student experiences in a multidisciplinary honours programme based on Renzulli’s enrichment model

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ABSTRACT: This paper reports on the evaluation of a multidisciplinary honours programme. 73 honours students in a research university responded to surveys on their experiences and development of graduate attributes. The evaluation study reveals that in the acquisition of graduate attributes, three factors play crucial roles: at student level (motivation), teacher level (support in critical thinking and creativity) and organization level (learning community).

1 Introduction

In recent years most Dutch research universities have introduced honours programmes as an additional track upon regular Bachelor's and Master's programmes. Yet despite the growing popularity of honours programmes, little research addresses the benefits of different types of teaching and learning activities for students' academic development (Kiley et al, 2009). Their advancement demands more detailed information about those aspects of educational practices that enable high potential students to further develop their talents. In this paper we report on the design and implementation of a multidisciplinary, extra-curricular honours track at the University of Groningen, based on principles proposed by Renzulli (2000). A first cohort of students started in 2009 and completed the track in 2012. With regard to the implementation of this multidisciplinary honours track, we address two issues in this study: students' perception of the challenges the teaching and learning setting in the honours track provides compared with a regular degree setting, and the identification of conditions that facilitate students' academic development. In turn, the key research questions for this study are as follows:
Is the teaching in the honours programme more challenging than in the regular bachelor's degree programme according to the students?
To what extent and which teaching and learning conditions contribute to students' acquisition of graduate attributes?

2 Theoretical background

University honours programmes may offer an efficient means to stimulate high potential students to engage in in-depth study activities and accelerate the development of graduate attributes such as research skills, presentation and communication skills. Whether honours programmes actually succeed in doing so likely depends on the following three factors: (1) the selection of types of educational activities used to address the learning needs of high potential students, (2) students' perception of the teaching and learning process and (3) the selection and admission process.

Selection of educational activities in a university context

To meet the interest of high potential students and to further their learning, teachers must display stimulating teaching behaviours (Renzulli, 2000). Beyond transmitting information and clarifying concepts, teachers should serve as questioners, raising interpretive issues for discussion and debate to stimulate critical and creative thinking. VanTassel-Baska (2003) suggests activities like brainstorming, discussions and debates, to foster understanding of key concepts. Furthermore, teachers should collaborate with students in research activities. Another important aspect of the teaching and learning environment is, according to Smith
and Bath (2006), that students experience their studies as a learning community, in which collaborative learning play an important role.

**Selection criteria: student characteristics**

Student characteristics that may contribute to excellent study performance and the development of graduate skills are students' goal motivation and the extent to which they are prepared to commit to challenges in the learning environment (Winne and Nesbitt, 2010). If students experience success in their studies, this will increase their motivation to perform even better (Grant and Dweck, 2003). Often, students with explicit learning goals are also more able to withstand failures. Creativity is pre-eminently a prerequisite for the outcomes of group work. Ultimately, self-regulation and self-management skills are extremely important, because the demanding character of the extra-curricular programme (Pintrich, 2004).

Renzulli's school-wide enrichment model applied to the university honours programme

Renzulli's (2000) school-wide enrichment model (SEM) inspired the university honours programme that is evaluated in this paper. Thus, the multidisciplinary programme developed on the basis of the SEM comprises different types of course units (see Figure 1). The programme consists of a disciplinary part, the so-called deepening course units, a multidisciplinary part, the broadening course units, and a general support part. This extra-curricular programme is 45 ECTS¹, beyond the 180 ECTS of the regular Bachelor's degree programme.
Figure 1: Overview of the extracurricular honours programme
Disciplinary course units are part of the programme during all three years. In these courses students learn about actual issues in their own disciplinary field and elaborate on it by means of assignments. Students take every year 5-10 ECTS in disciplinary courses. The broadening course units are about issues in society and research issues that demand interdisciplinary collaboration. These course units introduce students to views and concepts in disciplines outside their own discipline that shed a different light on those issues. Every faculty in the university offers a broadening course, but only students from other disciplines can attend. Examples are the uses of new technology for the production of products, use of new research technologies, availability of health care to the general public etcetera. Students can chose to attend two broadening courses during their second year of thehonours track (amounting to a total of 10 ECTS). Broadening courses are linked to summer- and winterschools that elaborate even further on the topics of these courses. These schools last one to two weeks. Some of these schools are held outside the Netherlands (New York, Bath, Rome). In most schools experts are invited. Students choose one of the schools. These schools prepare for group projects related to the topic of this summerschool. At the end of the second year students choose one of 10 summer- or winter schools of a faculty other than their own. These schools should lay the foundation for a research project in which students engage during the third year. The topics of these schools are about prominent research and innovation issues in specific disciplines that also touch issues of legal, philosophical, psychological, sociocultural, medical, geological nature. In the summer- and winter schools students start elaborating in a group of 10 to 15 students the topic of the school. Subsequently sub-groups of three to five students start a project in which they try to answer intriguing and critical questions which concern them. This project that is conducted in year three allows students to integrate their knowledge of the topic, their disciplinary knowledge and their skills. Students produce a report or a book, or assemble a
poster presentation. At the end of the third year students show their products and present their findings in different sessions to the general public.
To ensure and enhance the quality of the group products and the presentations students receive graduate attributes training in multidisciplinary groups during the first two years. During these years students engage in workshops to improve their academic writing and debating skills. The academic writing workshop focuses on improving weak points in text writing, structuring text, writing style etc. The debating course focuses on aspects as how to present ones views on a topic, selecting arguments, how to direct a debate, spot troublesome arguments of opponents.
To support students' academic development, students also receive career support. The career support consist of a series of mini workshops in which students from different disciplines enrol. The workshops last two to four days. In these workshops students participate in activities that allow them to learn more about their motives and emotions, about self-management skills and the realization of personal career goals. In the first year there are two workshops about students' self and their emotions. In these workshops students learn about the fit between their person and possible career options (work-oriented or organisation oriented type, a specialist or generalist drive type of person). They also learn to reflect on their personal behaviour in interpersonal situations by means of role play sessions. In the second and third year there are workshops about goal setting, self-actualization and behaviour management.
Selection for admission to the honours programme

Students are selected based on their academic performance in the first semester of their degree programme and their motivation, to be evaluated in a selection interview. In this interview, students must convince the Admissions Board that they are sufficiently motivated and suitable for the honours path. The best 10 % of each degree programme are invited to apply. Capable students outside the top 10% may apply for a 'wild card' place in the honours programme as well.

Biggs 3P-model

We used Bigg's (2003) 3P model as framework for studying the factors that contribute to students' graduate attribute development. We assume that student characteristics and their perceptions of the teaching and learning environment interact to produce students' learning approaches, which in turn enhance students' academic performance and acquisition of graduate attributes. In this context, we therefore evaluate students' performance motivation, perception of the honours track as a learning community and the frequency with which teachers support critical and creative thinking, because these factors seemingly should affect students' engagement in the final group project and outcomes.
3 Method
3.1 Instruments
Every year a survey was administered to evaluate students' motivation, experiences and satisfaction about the programme and the perceived contribution to students' graduate attributes. The questions about students course experiences were dovetailed to the kind of activities students did engage in. Several multi-item scales were used in every questionnaire. The perception of the honours programme as a learning community was assessed by means of the learning community scale of the Course Experience Questionnaire (Ramsden, 1991). Teaching behaviour was evaluated by means of an adapted version of the structured teacher observation scale developed by VanTassel-Baska et al (2003). The quality of the collaboration in the final group project was assessed with the group process reflection survey questionnaire by Kanthan and Mills, 2007). For a number of graduate attributes (e.g. communication and presentation skills, collaboration skills, research skills and ethical judgment skill) students were asked to indicate to which extent the honours programme had contributed to their development. For all the multi-item scales, we used four response alternatives (1-4), such that the scale mid-point corresponds to a value of 2.5. Scores above the scale mid-point imply a fair to strong presence of a particular characteristic, whereas a score of 1 indicates its complete or nearly complete absence. The quality of the group product was assessed by a single item. This item read: 'We managed to produce a fine and excellent piece of work'.

3.2 Population, data collection and response
At the start of the honours programme 215 students were admitted; in the third year 160 students (74 %) were still in the programme. Reasons for drop out mentioned by the students were: the workload was too high(36%), other activities were valued more important (24%) and the programme was not satisfying(19%). At the end of each year, all the remaining students received an online questionnaire. For this study, we used data collected at the ends of both the second and the third years. Interviews with five faculty coordinators and five teachers in the honours programme, involved in coordinating the summer or winter schools and the successive group project provided qualitative information about group collaboration in the project.

3.3 Analyses
Students' perceptions of the teaching and learning setting in the honours programme and the conditions that contribute to develop graduate attributes and a high level of academic performance are the core issues in this research. To gain an in-depth understanding of the impact of factors that facilitate or undermine the development of graduate attributes, we conducted correlation analyses. Then we used the correlation matrix, containing variables that correlated significantly with group project factors and the perceived contribution to graduate qualities development, to conduct a path analysis with the computer programme LISREL VIII (Jöreskog and Sörbom, 1996).

4 Results
4.1 Descriptive data
Students showed a relatively high score (3.04 out of 4) on the performance motivation scale, indicating that they were quite driven to perform well in the programme. A majority of the students (70%) experienced the honours track as a learning community. Students experienced their teachers in the honours programme and the teaching activities as more challenging than in their regular bachelor's degree programme, as Table 1 indicates.

Table 1: Mean Scores for Teaching Support Behaviour Items

<table>
<thead>
<tr>
<th>Teacher activities</th>
<th>Honours programme</th>
<th>Regular Bachelor programme</th>
<th>Pairedwise</th>
<th>Sig. (2-tailed)</th>
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330
4.2 The final group project

The group project is the culmination of the honours track. In this final group project student need to apply their knowledge about a problem related to the topics of the summer or winter school and use their skills and creativity.

On average, students were fairly satisfied with the way they cooperated in the group project (mean score 2.92 out of 4), although we encountered significant differences between groups. It seemed that the experience of the way students had collaborated as well as the quality of the final work was negatively influenced by (a couple of) students who were not fully committed to the project and who showed free rider behaviour. The quality of the group product was evaluated as satisfying (2.88 out of 4).

4.3 Students’ graduate skills development in the honours track

We looked at students’ evaluation of the contribution of the honours track participation to the development of graduate attributes. We discerned among others research skills, communication skills, collaboration skills and, presentation skills. Only five percent of the students indicated the honours programme had not contributed to their skills development. The majority of the students (65%) on the other hand confirmed a significant contribution.

4.4 What student and programme factors are related to the development of graduate attributes?

Correlational analysis showed that student’s performance motivation, teacher support in creative and critical thinking and programme characteristics as the learning community and the quality of collaboration were significantly related to the experienced growth in graduate attributes. We carried out a recursive path analysis to further explore the contribution of each of these factors to students’ graduate attributes development. This analysis resulted in a causal model with an adequate fit ($\chi^2 = 2.67$, 5 degrees of freedom; $p = 0.75$; square root mean residual = 0.03; goodness-of-fit index = 0.99). All paths in this model are unidirectional, and their direction is indicated in Figure 3 by arrows. To indicate the strength of the causal paths among variables, we provide the standardized path coefficients, which reflect the increase in the dependent variable caused by a one standard unit increase on the scale of the independent variable (Jöreskog and Sörbom, 1996).

Figure 3 shows the importance of the learning community, supportive teacher behaviour and performance goal motivation on the development of graduate attributes. Satisfaction with the final group work products is strongly influenced by the quality of the collaboration in the project and supportive teacher behaviour.
Figure 3: Path Model for the Impact of Honours Track Participation on Students’ Graduate Attribute Development

5 Conclusions
Taking Renzulli’s school wide enrichment model as a prototype, a multidisciplinary honours track was designed that comprises different types of course units to enhance the academic development of students. The track is an add-on to a regular Bachelor’s degree track. The track was first implemented in year 2009/2010. This paper evaluates the experiences of the first cohort of students that completed the entire honours track.

Our first research question if students experience the teaching in the honours programme as more challenging than the teaching in their regular bachelor’s degree programme can be answered positively. Regarding our second research question about the contribution of the learning environment and teacher support to the acquisition of graduate attributes, we learned that teachers play a key role. Teachers who stimulate creative and critical thinking contribute to a higher level of graduate attributes acquisition. Also, students who experience...
the honours track as a learning community, are more satisfied with their graduate attributes development. The quality of the collaboration in the project group is directly related to the satisfaction with the final product.

These results give some handles for improvement of the programme.

5.1 Directions for improvement

The directions for improvement regard the selection of students, as well as the programme design and the selection of teachers.

Student selection

It is important that students who apply for the honours programme are aware of and prepared to work in a learning community. Furthermore, it is necessary to select students on their goal motivation as well as on their motivation and preparedness to work in interdisciplinary teams.

Programme

Because we encountered students and teachers who were dissatisfied with the way some students behaved in the group project, we advise teachers strongly to support the group project. Some students need more clarification of concepts outside their own programme in order to function well in the interdisciplinary projects. Furthermore, we advise teachers and the programme coordinator to use differentiated grading in the group project, so that students who have put in more effort are rewarded.

Teachers

Finally, teachers represent a critical factor. Gentry et al (2011) propose some student-identified characteristics of exemplary teachers: passion, high expectations, sense of humour, connected with students, engaging with students in meaningful learning and a willingness to differentiate among individual students. The careful selection of teachers and their on-going professional development thus seem likely to contribute to stronger honours programmes.

REFERENCES


Institutional Strategies to Educate Professionals for Social Responsibility through Service-Learning

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ABSTRACT: Universities in Hong Kong are undergoing a massive change starting in 2012/13, when the 3-year undergraduate degree structure changes to a 4-year one. Increasing emphasis is being put to educate students into socially responsible citizens interested in serving the community. The Hong Kong Polytechnic University is making it compulsory for all students to take at least one credit-bearing subject in Service-Learning (SL), with purpose-designed teaching, services and assessment components. At full implementation, in each year, more than 2,800 students are expected to enrol in around 70 subjects covering topics ranging from bridge building, digital story telling, learning difficulties, and eco-tourism. Students will be serving slum dwellers, handicapped children, villagers without water nor electricity, new immigrants, and ethnic minorities in Hong Kong, Chinese Mainland, Cambodia and Rwanda. This paper will report on the pedagogical design of the program, challenges and strategies for implementation, and the progress made so far.

1 Introduction
Universities in Hong Kong are undergoing a massive change in 2012/13, as a result of the government's decision to change the academic structure for higher education in Hong Kong from a 3-year undergraduate degree structure to a 4-year one. One intended benefit of the change is that "(t)he higher education institutions will be in a better position to provide a balanced education to their students, through an integrated 4-year undergraduate programme, that allows for a broader knowledge base to support specialised learning" (Education and Manpower Bureau, 2005, p. 12). Internationally, increasing emphasis has been put on the role of universities in educating students into socially responsible citizens with a heart to serve the community (e.g., Andrzejewski and Alessio, 1999; Purdue, 2005; Mohamedbhai, 2011; UNESCO, 2009).

The Hong Kong Polytechnic University (PolyU) took the opportunity afforded by the change to strengthen the development of students’ sense of social responsibility through the stipulation of a Service-Learning Requirement, in which all students are required to successfully complete a 3-credit subject with an approved SL component in order to qualify for graduation. To plan and prepare for the implementation of the university-wide SL Requirement is a mammoth task, as it involves the development of more than 70 SL subjects to cater for over 2,800 students each year. There are also challenges in terms of staff incentive and buy-in, staff experience and expertise, time-tabling problems, resource and funding issues. A variety of strategies and actions have been undertaken by PolyU to address those challenges, and to facilitate the development and implementation of SL subjects. These include:

Appointing academics who are keen advocates of SL to steer the development
Developing clear policies and guidelines for subject development, approval and delivery
Establishing an Office of Service-Learning (OSL) to coordinate and facilitate subject development and delivery
Staff development activities (including an eLearning short course for staff) to share experience and promote staff buy-in
Funding to support piloting of pioneer projects
This paper will examine the efficacy of the institutional strategies, report on the progress made, and reflect on the lessons learned.

2 Service-Learning at PolyU
As an important type of experiential learning, SL integrates community service with instruction and reflection to enrich students' learning experience, in order to achieve intended institutional or program learning outcomes. It enhances students' sense of civic responsibility and engagement on the one hand, and benefits the community at large on the other (NSLC, 2006).

2.1 Definition of Service-Learning
At PolyU, a relatively broad definition of service-learning is adopted, to embrace not only activities that serve people directly, but also indirect service activities relating to civic responsibility and engagement. It can include direct service activities such as tutoring of children in poverty, construction for remote villages, and health education for underdeveloped communities as well as indirect services such as field research on sustainable development and advocacy for social justice. Both local and offshore activities can be included. Service-learning has certain similarities with, but is not the same as, volunteer work. While volunteer work stresses service without compensation or reward, service-learning emphasizes learning through participation in services. Hence students' self-reflection and assessment are critical elements of service-learning (Bringle & Hatcher 1999). Students are also "rewarded" by academic credits when academic objectives are achieved.

2.2 What Constitutes a SL Subject at PolyU?
PolyU is a comprehensive university with a wide range of disciplines. Each academic program is typically composed of Discipline-Specific Requirements (DSR) and General University Requirements (GUR). GUR includes languages and general education subjects, with a total of 30 credits and is equivalent to one year's worth of studies. Service-Learning is designed as a 3-credit subject as part of the GUR. A SL subject can be offered by any academic department. It may target general issues such as poverty relief or assisting the elderly; or it may target more specific issues such as assistive devices for the handicapped, housing problems, or dyslexia. It may require generic skills such as communication in English and Chinese; or it may require discipline-specific skills such as bridge-building, accountancy, nursing or graphic design. It may be designed for all university students; or for students from a specific discipline of study. Table 1 provides a sample of the variety of subjects that have been developed at PolyU. Put simply, an academic subject qualifies as a SL subject if it satisfies the following.

Clear academic objectives and expected outcomes for the students, which may be generic, discipline-specific, or both.

A significant amount of community service activities (at least 40 hours, roughly one-third of the total amount of the expected student effort for a 3-credit subject), which address identified needs in the community in a meaningful way, which must be supervised and assessed.

A rigorous process for student reflections, on the linkage of their studies to the needs of the community and the services, their personal role and growth, and the impact of their services.

<table>
<thead>
<tr>
<th>Open to all students</th>
<th>Targeting 1st or 2nd year students</th>
<th>Targeting 3rd or 4th year students</th>
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<tbody>
<tr>
<td>Technology beyond borders: service-learning across cultural, ethnic and community lines</td>
<td>Advancing oral presentation skills through teaching</td>
<td>Community psychology</td>
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<td>Rural construction in China</td>
<td>Understanding learning difficulties</td>
<td>Healthy indoor environment for the elderly</td>
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<tr>
<td>Understanding learning difficulties</td>
<td>Land and resource management for sustainable rural development</td>
<td>Service-learning &amp; civic engagement in the information age</td>
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<td>Resilience of children in post-disaster areas</td>
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<td>Engaging with ethnic diversity</td>
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<td>Engineering design for the</td>
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Table 1 Sample SL subjects

<table>
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<tr>
<th>Discipline-specific</th>
<th>Scientific thinking in schools</th>
<th>Financial literacy for low-income youth</th>
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<td></td>
<td>Ecotourism in rural and developing regions</td>
<td>Fashion as rehabilitation therapy</td>
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<td></td>
<td>Special health care needs in China</td>
<td>Serving school dropouts</td>
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<td></td>
<td>Biomedical engineering services for people with physical disabilities</td>
<td>Promoting healthy aging</td>
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<tr>
<td></td>
<td>Teaching Chinese as a second language</td>
<td>Enabling occupation in home and community practice</td>
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<td></td>
<td>Public health optometry</td>
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</table>

3 Challenges and Strategies

The university has had many years of prior experience in organising community service carried out by students as extra-curricular activities, similar to many other universities (Chan et al, 2006). Some such activities were supported by academic staff and others not. There were actually a few academic subjects with SL elements, typically in disciplines such as social work, nursing and rehabilitation sciences. However, turning SL into a form of required, credit-bearing academic subjects across the whole campus involves huge challenges. Many people in the university, including both academics and administrators, are sceptical about the desirability of including a SL Requirement for all students.

There is no clear understanding, let alone consensus, of what Service-Learning is, and how to implement it as a credit-bearing subject.

There are few people in the university with the necessary knowledge and experience in developing, delivering and assessing Service-Learning.

A number of institutional strategies have been adopted to overcome these challenges.

3.1 Convincing the university community of the value of Service-Learning

There were three major arguments against integrating SL into the core academic program. While social responsibility is a desirable attribute, students can and should be encouraged to participate in community service voluntarily. But they should not be required to participate. Some students are not interested in community service. Others may not be temperamentally or otherwise equipped to engage in community service.

Students should not be given academic credits for doing "volunteer" work, which benefits society but do not have academic value.

Much debate went on at all levels, from the departmental level, the faculty/school level, to the highest level academic body of the university, the Senate. There were also discussions at seminars, workshops, task forces, focus groups and retreats (Shek and Chan, 2012). In the end, our assessment is that the community was won over by the following major arguments.

Service-learning, properly done, is learning through community service, which is a legitimate learning activity with clearly-stated and measurable learning outcomes. Hence it should be give academic credits.

Service-learning, broadly defined, is an effective way to teach social responsibility, which is an integral part of a holistic education - the university's core business.

Social responsibility being an important desired graduate attribute of all PolyU students, service-learning hence should be a required subject of all students. A wide range of service-learning options can be made available to suit the specific needs of different academic programs and individual students.

It can be argued that it is precisely those who do not have the desire, or are not prepared for social engagement who should be educated through service-learning, with proper teaching, supervision, and reflection.

3.2 Appointment of Advocates

The integration of SL was spear-headed at the highest level by a vice president of the university. A number of people particularly active throughout the university’s prior experience in SL were identified and tapped to be advocates for the new initiative. Naturally, some of
them come from social work backgrounds. Somewhat surprisingly, some of them come from technical disciplines such as computing. One was appointed the head of a new central Office of Service-Learning to promote SL. Another was appointed the chair of the committee in charge of vetting the newly-developed SL subjects. An experienced education specialist familiar with the university’s procedures was asked to assist in the development of needed processes and policies. This core group of advocates complement each other and play instrumental roles in the implementation.

3.3 Formulation of Policies
A task force was set up to study best practices at leading universities and to develop a policy paper on the initiative. This task force invited speakers experienced in SL, both within and external to the university, to conduct workshops and seminars on the principles and practices of SL. They also conducted broad ranged consultations across all faculties of the university on the development of the paper on the initiative. Progress was swift, and in a few months’ time, a working paper was developed. The paper developed includes the rationale behind the initiative, clear definitions of SL, the basic structure of a SL subject, and the types of subjects envisioned. This paper became the focal point of discussions. It was subsequently presented to and approved by the Senate, the highest academic body of the university. It then became the foundation of the policy on SL and all subsequent developments.

The chair of the task force was then appointed head of the newly established Office of Service-Learning tasked to promote the implementation of the initiative across the university. The OSL can be considered the operational arm of the SL initiative. An academic committee was formed to vet and approve the subjects proposed - the approval authority and quality control arm.

3.4 Central support
Several departments are already experienced in SL because of the nature of their discipline. These include social work, nursing, rehabilitation sciences. Some departments, such as computing, design and biomedical engineering, have acquired some experience because of their own initiatives. Most other departments, however, are relatively inexperienced. Hence it is felt important for the university to provide needed support for developing subject syllabi, teaching methods, service projects, etc. The need is also evident from studying practices at many leading universities. Hence the Office of Service-Learning was formed to provide central support and coordination.

The OSL advises department and academic staff in developing subjects and projects, liaise with non-government organizations to find suitable projects for the teachers, liaise with funding agencies and donors to support projects, offer staff development workshops and courses, and organize a number of exploratory projects.

Working closely with the committee in charge of vetting subject proposals, the OSL also developed an eLearning module for students that covers basic concepts on service learning that can be used as a core part of a SL subject. The module requires 10 hours of student efforts to complete. It was rolled out in January 2013, and is being integrated into many SL subjects. It reduces the teaching load of the teaching staff, ensures some consistency in teaching, and in general promotes the implementation of service learning.

3.5 Staff Development
There were few academic staff who had significant experience in developing, delivering and assessing credit-bearing service-learning. Hence staff development was critical. A number of actions have been taken, many of which have turned out to be highly effective.

Workshops and seminars have been organized on the average of once a month, on a broad range of topics: the policy on service-learning, how to write a syllabus, how to assess students’ performance, etc.

An eLearning short course for staff have been developed and deployed in September 2012. It covers the basic concepts, advantages, myths, subject and project development guidelines, samples of SL subject syllabi and projects, etc. It takes 3 hours to complete. (Shek & Chan, 2013)
Staff who are interested but less experienced in offering SL subjects are given opportunities to participate in service projects to acquire hands-on experience. A practical experience short course is offered for the first time in summer 2013. Staff will join the students on a SL project in Cambodia to acquire first hand experience in service, and in supervising and monitoring students' performance. A community of practice is being formed, as a platform for staff to share experiences, collaborate in exploratory projects and research, and to promote the practice of service-learning.

3.6 Funding Support and piloting
The class that enter university in 2012 for the new 4-year degree programs is the first cohort required to meet the SL Requirement for graduation. Starting in the summer of 2011, SL subjects have been piloted - offered to the students in the existing 3-year programs. Since these subjects have not been allocated funding in the current budgets, additional funding have been allocated for piloting (testing) new subjects, projects, and pedagogies in preparation for the new 4-year programs. The piloting is invaluable in paving the way for the 4-year degree programs, while at the same time, allow the 3-year degree students to benefit from the rigorous and innovative teaching of service-learning. Starting with the new 4-year degree programs in 2012, SL subjects will be offered and funded like other academic subjects. In addition, it is recognized that service-learning involve significant amount of activities conducted outside the classroom. Hence there may be a need for additional resources for supporting the subject delivery such as field supervision, travelling and equipment. Hence SL subjects are actually funded at a level higher than other GUR subjects.

Students will learn much more if they can be exposed to and serve communities beyond Hong Kong. While Hong Kong is a part of China, parts of China are so different from Hong Kong that they might as well be different countries, having a different political system, speaking different languages or dialects, eating different foods, and having very different cultural traditions. And then, of course, students are also given opportunities to serve in foreign countries such as Cambodia, Indonesia, Vietnam and Rwanda. Such travelling incurs significant costs. While the university is expecting the students to cover part of their own costs to ensure ownership and accountability, it is also making funds available to subsidize the students' expenses.

It is encouraging to witness that many donors, both individuals and institutions, are quite willing to donate generously to fund SL projects, seeing the benefits to the students and the communities that they serve. Since the initiative started in 2011, donations of approximately one million US dollars have been received.

4 Early Results
4.1 Subjects developed
It is estimated that an average SL subject can accommodate 40 students, and we need to offer around 70 subjects each year to accommodate all the 2,800 students needing to take a SL subject, when the initiative is in full implementation.
From the spring of 2011, when we started, until the spring of 2013, 32 subjects have been developed and approved, with another 10+ subjects in the pipeline. Including those in the pipeline, we figure that we have probably enough capacity to accommodate all the students that are expected to take service-learning in 2013/14, which is about 1,400. Not surprisingly, many of the subjects are offered by health and social science departments. It is encouraging, however, to see a healthy number being offered by the engineering and construction & environment departments. All faculties and schools are now active in offering service-learning, although there are several departments within these faculties and schools that are yet to come up with their own subjects.

4.2 impact on students.
As of March 2013, 500+ students have either taken or been registered for a SL subject. They represent all faculties and schools in the university. Somewhat surprisingly, the largest group of students are from the faculty of engineering. It is because some engineering departments, such as computing and biomedical engineering, have been pioneering service-learning for years.
Students are surveyed before and after they have taken their SL subjects. At the time of reporting, data have been collected from ~100 students who have completed a credit-bearing SL subject, and the preliminary results are quite encouraging. These are, of course, very early results from a small population. We will have to continue to monitor the implementation of these subjects and perform more in-depth analysis in order to better understand the impact of the initiative.

Figure 3. Students’ self-evaluation of generic skills before and after taking SL.

5 Discussion
Starting from scratch in 2011, the SL initiative has been largely progressing on schedule. This is the result of adopting best practices from leading universities, determination and strong support from the senior management, clear and balanced policies, the effort of a number of enthusiastic advocates, and most importantly, support from a broad spectrum of staff and students from across the university.
Nevertheless, from the experience in the past two years, a number of issues requiring attention have been identified.

Quality assurance - There is a need to ensure that the subjects offered are genuine SL subjects, and that they are taught in the way it was designed.

Funding support - Many subjects, particularly those involving travelling and equipment incur significant expenses.

Appropriate pedagogy - To develop appropriate teaching methods for different types of SL subjects, particularly for students who do not necessarily participate voluntarily.

Scalability - To develop a number of large-scale subjects/projects to accommodate the very large number of students involved.

These issues are being addressed actively. Based on the experiences in the past two years and the early results, it is expected that the initiative will be successfully implemented.

References
A curriculum framework for flexible engineering degrees in South Africa

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ABSTRACT: South Africa produces too few engineers to meet its development needs. The number of graduating engineers is slowly increasing, but is still only about 2000 per year, serving a population of over 50 million. Data from the Council on Higher Education (CHE 2013) show that for the 2005 cohort of BEng students nationally only 25% obtained an engineering degree in the regulation time of four years, with another 19% taking five years. In a study for the Engineering Council of South Africa on improving throughput (Fisher 2011), one suggestion was to increase curriculum flexibility to better cater for the needs of a diverse student population. As part of a CHE project, we developed exemplar curricula for engineering degrees designed to take either four or five years to complete. In this paper we describe the underpinning principles that guided the design and illustrate how they are applied in curriculum exemplars for a mechanical engineering degree.

1 Introduction

Engineers are vital for South Africa to meet its social development and economic goals. Yet the ratio of registered engineers to population is a very low 1:3166 in South Africa, compared with 1:543 in Malaysia, 1:389 in the USA and 1:130 in China (Lawless 2005). A contributing factor to this low ratio is the poor throughput rates of students in engineering. Analysis of data by the Council on Higher Education (CHE) for the 2005 cohort of students who registered for a bachelors degree in engineering (BEng)\(^\text{19}\) shows that only 25% of students completed the degree in the regulation time of four years, another 19% completed in five years and a total of 55% had graduated after six years. The figures for historically disadvantaged black African students, many of whom come from impoverished communities, are 11% completed in four years, another 16% in five years and 41% had graduated after six years. There are thus both developmental and social justice reasons for South Africa to find ways to improve throughput in engineering degrees.

In 2011 the Engineering Council of South Africa (ECSA) commissioned a study on how to improve throughput in the BEng degree (Fisher 2011). The report identified seven "levers of change", one of which is curriculum that is, "flexible enough to cater successfully for a diverse student intake". The report states,

...the curriculum, in particular its rigid course structure, heavy course load and lack of differential entry points and flexible pathways, caters poorly for a diverse student intake, with negative consequences for student outcomes (pg 126).

South African engineering curricula are particularly rigid in that courses are largely prescribed, with the result that students have few, if any, opportunities to choose elective courses during their degree programmes. Apart from the negative consequences for students from less privileged backgrounds, rigid curricula provide little space for innovation and adaptation to 21st century workplace demands. In its 2012 publication, the Royal Academy of Engineering states,

\(^{19}\) Also called a BSc (Eng) or BEng
A series of reports from The Royal Academy of Engineering...has demonstrated that change in undergraduate engineering education is urgently needed to ensure engineering graduates remain equipped for the new and complex challenges of the 21st century (p 2).

The report identifies four common features of successful change, one of which is, "the extent to which the change is embedded into a coherent and interconnected curriculum structure." In South Africa, a consequence of the poor throughput rates is that the large majority of engineering students do not follow a coherent curriculum, as they repeat certain courses at the same time as they continue with courses at higher level for which they have met the prerequisite requirements. This problem extends beyond engineering, and is true of all degree programmes in South Africa. For this reason, the CHE established a task team to consider the implications of creating flexible curriculum structures that would allow students to proceed at different rates but still follow coherent curricula\(^{20}\). Four working groups were established to create exemplars in different fields of how the curricula might be structured if the majority of students were to plan to spend one year longer in the degree programme, enabling them to take additional courses for development or enrichment, while still allowing a minority of well-prepared students to complete the degree in the existing regulation time.

In this paper, we describe two curriculum exemplars devised for the BEng degree, specializing in mechanical engineering, starting with theoretical perspectives and design principles. Two of us are engineers and engineering educators, one is a physics educator and curriculum specialist and the fourth is a higher education and curriculum specialist.

2 Curriculum as a means to overcome systemic traps

The problem of low throughput rates is systemic and should therefore be addressed at the level of the higher education system. However, systems can malfunction. In her insightful book on systems theory, Donella Meadows (2008) identifies eight problematic system behavior "archetypes" that she labels "traps" because, she says, "Blaming, disciplining, firing, twisting policy levers harder, hoping for a more favorable sequence of driving events, tinkering at the margins — these standard responses will not fix structural problems." Four of these traps are:

- **Trap 1: Drift to low performance**
  When performance deteriorates over time it is easy to lower expectations. The solution is to set absolute standards, which may be enhanced as attention is focused on the best in the system instead of the worst.

- **Trap 2: Shifting the burden to the intervener-Addiction**
  This occurs when a policy or the action of an individual leads to short-term relief but does not solve the underlying problem. The need for short-term action escalates, but the problem remains. The best solution is to avoid getting into the trap. The next best is to identify the underlying problem and seek long-term restructuring rather than short-term relief.

- **Trap 3: Rule-beating**
  The imposition of rules may lead players in the system to appear to follow them but actually cause distortion of the system. The solution is to create rules that release "creativity not in the direction of beating the rules, but in the direction of achieving the purpose of the rules."  

- **Trap 4: Seeking the wrong goal**
  When the indicators used to measure the attainment of goals are defined inaccurately or incompletely the system may produce unintended or undesirable results. For example, "if the quality of education is measured by performance on standardized tests, the system will

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\(^{20}\) The report of this task team is due to be published in May 2013.
produce performance on standardized tests." This may or may not correlate with quality education. The solution is to take great care in specifying indicators and goals, and to not confuse effort with results.

In trying to address the problem of low throughput rates, higher education institutions can easily fall into these traps. As the number of students who have to repeat failed courses increases, there is a temptation to lower standards (trap 1). As ever-increasing numbers of students bang on the doors of higher education, it is tempting to allow more and more students to enter, hoping that more entering students will mean more successful students, but then leave them to their own devices, to sink or swim (trap 2). Stringent requirements for programme accreditation may lead departments or institutions to comply with written criteria while not, in practice, offering courses that are well-designed or taught and therefore do not lead to effective learning (trap 3). And merely looking to increase the number of graduates can lead to graduates that have little to offer society or employers (trap 4).

Carefully designed curricula can provide a way of avoiding these traps. In referring to successful "programmes of change", the report of the Royal Academy of Engineering (2012) states,

Almost without exception, successful and sustainable change starts with a fundamental assessment of the curriculum-wide goals and involves a high-level re-alignment of the entire curriculum structure in which a cross-section of faculty are involved. This successful approach to educational design appears to be independent of the scale of change undertaken. Indeed, most successful 'curriculum-wide' changes typically only involve the creation of a relatively small number of new courses—usually less than 20% of the curriculum. What distinguishes them, however, is the extent to which the changes are interconnected within a re-designed coherent curriculum structure with multiple horizontal and vertical dependencies (p2).

The broad curriculum-wide goals we propose are:

To create a pool of engineers who, taken as a whole, have a range of knowledge and skills that will address a range of needs in South Africa;
To allow students with diverse entry characteristics who have the interest, motivation and ability to complete an engineering degree to do so;
To enable students to acquire skills and knowledge essential to the engineering profession;
To develop future engineers who are ethical and understand the impact of technology on society and the environment and the need for development that is sustainable.

3 Curriculum design principles

3.1 Broad principles

The brief we were given for the curriculum exemplars was to design curricula that most students would take five years to complete, but that could be completed in four years without losing coherence. The five-year curriculum is considered to be the mainstream, and the four-year curriculum is designated the accelerated programme. Listed below are five overarching design principles that we developed to guide the design of the curriculum exemplars.

1. Consider the pool of engineers, not individual students
South Africa needs to have a pool of engineers with certain skills and knowledge, but the specific knowledge and skills held by each engineer do not need to be identical. On the contrary, there must be some diversity in the skill set and specialised knowledge available within the pool in order to address the need for engineers who are competent to function in
different roles. That means that not all engineering students in a particular programme need to take exactly the same courses or follow the same route in order to achieve the expected outcomes.

2. Distinguish between core subjects and options
Core subjects are those that are deemed to be essential for all engineering programmes. To help us identify core subjects, we compared existing programmes of several South African universities and looked for subjects that were part of all (or almost all) programmes in the same area of specialisation. Other subjects are labelled as discretionary (options), but may be required by a particular institution.

3. Allow choice
While certain departments may identify other (non-core) subjects as essential, there should be space within the degree programmes for individual students to pursue their interests. This would result in some students pursuing a programme with greater depth in certain areas, while other students may prefer a programme with greater breadth.

4. Limit students' total load
Students' "total load" should be limited. In the concept of "total load" we include aspects such as the number of assignments, tests and distinct subjects students must deal with simultaneously.

5. Spread out the support for student development
Student development needs to be done over a period of years, not months. Explicit developmental support needs to be provided at different times during the programme, not only at the beginning, although more support is needed earlier in the programme than later on.

An interesting feature of an engineering degree is that there are several transition points at which students are expected to be able to think and act in different ways and deal with different types of knowledge (Donald 2002). Most curricula do not make these transitions explicit. We identified the following five distinct transitions students must make during the BEng programme:

From high school to university;
From basic sciences to engineering sciences;
From acquisition of knowledge to design;
From knowledge of discrete subjects to analysis of systems and integration of knowledge; and
From short, lecturer-led courses to extended student-led projects.

These transitions are challenging for all students, but are especially challenging for students from less privileged home and school backgrounds. We therefore decided that developmental courses were needed, in some cases for all and in other cases for some, students to navigate the transitions. In order to apply the overarching design principles and to help students navigate the five transitions listed above, we propose that the curriculum should consist of four types of courses:
Core courses for all students,
Developmental courses for all students,
Developmental courses for mainstream students, and
Discretionary courses to be determined by individual departments and students.

The purpose of developmental courses is to help students cope with transitions. A number of aspects of student growth should be explicitly promoted and supported. These aspects could include, for example, behaviours and skills that lead to effective learning, background
knowledge, ways of thinking not previously encountered, integration of knowledge and skills and addressing alternative conceptions. The presence of well-designed, well-taught developmental courses in the curriculum should reduce the likelihood that engineering education will fall into the "drift to lower performance" trap. It will also help universities adhere to one of the principles for promoting student success identified by Kuh et al (2005, p. 269), namely, "Student success is promoted by setting and holding students to standards that stretch them to perform at high levels, inside and outside the classroom," as more students should be enabled to reach higher levels of achievement.

3.2 Detailed principles

Detailed principles that we believe should underpin the curriculum design are listed below. The word "outcome" referred to the exit level outcomes specified by the Engineering Council of South Africa (ECSA 2004).

Course credits need to accurately reflect workload (number of hours students are expected to work).
The design of courses at all levels needs to be based on the characteristics of students for whom they are intended, including their prior knowledge and skills.
Course level (100, 200, etc.) should be designated appropriately. Level is influenced by, for example, familiarity or novelty of the content, prior content knowledge, skills, mathematical or other proficiencies required, integration or application of more than one prior course required, depth, complexity, conceptual and cognitive demand.
There is vertical coherence, that is, it is clear which courses must precede or follow others.
There is horizontal coherence, that is, it is clear which courses can or should be taken concurrently.
Key transition points need to be identified and supported.
A variety of skills, including communication and ICT skills, should be developed within the context of specific, identified content courses rather than in separate courses.
Where possible, courses should be designed so that more than one outcome is achieved.
Critical pathways should be identified. This includes identifying barriers to progression and providing mechanisms to support progression.
Cognitively demanding tasks should be spread out across subjects and semesters.

4 Application of the design principles to the exemplars

The exemplars for a four and a five-year curriculum in mechanical engineering are shown in figures 1 and 2. Core courses are coloured green, developmental courses for all but the accelerated programme are yellow, developmental courses for all students are orange and discretionary courses are red. The width of each block corresponds to the credit value of a course. Vertical coherence is indicated by lining up courses under one another. Courses in which writing skills are explicitly developed are indicated with a 'W' after the course code; an 'I' after a course code indicates that ICT skills are developed in that course.

4.1 Total load and credit values

Many students fail in their first year at university because the total load is so much higher than at high school. Students are unprepared for the relatively large volume of work and fast pace at university. To limit the total load in the exemplars there are no more than five courses in each semester. Although the time management skills of students should improve as they progress, taking too many distinct courses simultaneously is a problem for students in all years. There is a temptation in designing engineering curricula to include a large number of "small" (low-credit) courses to cover many topics, but we feel strongly that it is in the students' interests not to do this.
We have allocated most courses 12 credits, where one credit is defined by the South African Qualifications Authority as 10 "notional hours" of study, including formal teaching time, testing and self-study. At levels 200, 300 and 400 we have allocated the design courses 15 credits instead of 12 in order to ensure that the credit value matches the expected time students should spend on these courses.

4.2 Core courses, choice and training a pool of engineers

In the exemplars we identified core courses by looking at a number of different programmes from different institutions. That leaves room for other courses to be added at either a department's or a student's discretion. While some departments will consider certain courses essential for their students, we feel strongly that there should be room for students to be able to choose some of their courses according to their interests. An engineer in a certain discipline needs to have a certain core of knowledge and skills, but within the pool of engineers there should be individuals who have specialised knowledge in diverse areas. Therefore some courses that we have labelled "discretionary" should remain unspecified so that students can choose electives, and not only in their final year. Electives could be both technical and non-technical.

4.3 Design courses

Historically, South African mechanical engineering programmes have had a large number of design courses, but these courses have included both subject matter and aspects of the design process. In keeping with international trends, and in the interests of removing barriers to progression, for the mechanical engineering exemplars we have separated out subject matter and design in level 200 and 300 courses into courses named "analysis" in the first semester and "design" in the second semester. Each design course has been allocated 15 credits, while each analysis course has been allocated 12 credits. We suggest that universities allow students who obtained marks slightly below the passing mark in the analysis course at a certain level to repeat the analysis module in the next semester at the same time as they take the design course in order to facilitate student progression.

4.4 Vertical coherence

In the exemplars we have identified several component strands, each of which comprises a sequence of two or more courses. These courses are numbered sequentially and are positioned under one another in the diagram.

4.4 Skills

The development of writing and other communication skills and of ICT skills should be integrated into as many courses as possible. However, in the curriculum exemplars certain courses have been labelled with a 'W', for writing intensive, and/or an 'I' for ICT intensive. In these courses the development of the specified skills will be an explicit component of the syllabus. The three foundation courses in Year 1, Semester 1 of the five-year programme will also help students develop various academic and life skills, such as effective study methods and time management.

4.5 Reducing barriers to progression

Two structural barriers to progression in most programmes are: Courses that are prerequisites for other courses, Courses that are only offered in one semester.
Some courses require students to acquire specific knowledge and skills in preceding courses. However, there are cases in which exposure to the material in a course, without necessarily passing the course, is sufficient for a student to cope with a later course. In these cases, it may be possible to allow students to repeat the course designated as prerequisite and register for the later course simultaneously. In the mechanical engineering curriculum exemplars, we believe that placing the design courses in the second semester of Years 3 and 4 will aid progression (provided students can repeat the preceding analysis courses concurrently). Options for progression will also be increased if more courses are offered in both semesters. For courses with small enrolments, this would place too much of a burden on academic staff. However, for the larger-enrolment courses, it is likely that offering them in both semesters will not result in a net increase in staff time when compared to offering them once a year to a class that includes a large number of repeaters.

4.6 Developmental courses

In the five-year, mainstream programme, 11 developmental courses have been placed at key points in the curriculum in order to explicitly help students navigate the identified transitions. These courses have been spread out over the whole programme, with a greater concentration in the first semester of the first year. Three of these courses are also part of the curriculum for the accelerated programme.

From high school to university
Mathematics, Physics and Chemistry 101 are foundation courses, and focus on developing understanding of key concepts as well as a range of cognitive and academic skills. Drawing 102 is also a foundation course, designed to help students who have never done technical drawing.

From basic sciences to engineering sciences
Engineering Science 201 is a foundation course for engineering that introduces students to the application of basic sciences to processes and artifacts (components and machines). Engineering Science 301 introduces students to more advanced modeling techniques. Mathematics 202 is a foundation course in mathematics for engineering to help students develop the facility to link visual, graphical and analytical representations of functions of two variables (surfaces and volumes in three dimensions).

From acquisition of knowledge to design
Design 202 provides an introduction to the identification, selection and analysis of components and artifacts for performing specific functions, as well as the role of estimation.

From knowledge of discrete subjects to analysis of systems and integration of knowledge
Engineering Analysis 302 helps students learn to integrate what they have learned in discrete subjects, such as thermodynamics and mechanics, with mathematics to analyse the functioning of machines and systems, such as engines and heat pumps.

From short, lecturer-led courses to extended student-led projects
Advanced Communication 402 and Project Proposal 401 are designed to help students prepare for the capstone project in the final semester.

5 Conclusion

In this paper we have articulated a number of curriculum design principles and applied them to the design of flexible curricula. Although the curriculum exemplars we devised are for the
BEng degree, many of the design principles can be applied to other degree programmes. The massification of higher education necessarily means that students are entering universities with increasingly diverse characteristics. Designing curricula that are flexible yet still coherent, with developmental courses inserted at appropriate points, is a creative solution to increasing student success without falling into system traps.

References


**Figure 1: Curriculum exemplar for 5-year (mainstream) Mechanical Engineering Programme**

<table>
<thead>
<tr>
<th>Semester 1</th>
<th>Maths 101 (I)</th>
<th>Physics 101 (WI)</th>
<th>Eng 111 (WI)</th>
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<tr>
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<td>Physics 111</td>
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<td>Component Analysis 211</td>
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<td>Eng Analysis 302 (W)</td>
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<td>Disc</td>
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<td>Machine Analysis 311</td>
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<td>Vibration</td>
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<td>System Design 411</td>
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<td>Semester 2</td>
<td>Disc</td>
<td>Disc</td>
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<td>Capstone</td>
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</table>

Yellow: developmental (5-year programme)
Green: core
Red: discretionary
Orange: developmental for all students
I: ICT intensive, includes development of ICT skills
W: writing intensive, includes development of writing skills

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Figure 2: Curriculum exemplar for 4-year (accelerated) Mechanical Engineering Programme

<table>
<thead>
<tr>
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<th>Maths 111</th>
<th>Physics 111</th>
<th>Eng 111 (WI)</th>
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<td>Thermos 1</td>
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</tbody>
</table>

Green: core
Red: discretionary
Orange: developmental for all students
I: ICT intensive, includes development of ICT skills
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The experience, perceptions and attitudes of healthcare students undertaking an inter-professional ward simulation. A pilot study

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Abstract: Interprofessional working is essential for all health professions and training programmes must address this to ensure graduates are fit for practice. Current evidence relating to the use of simulation to facilitate interprofessional learning is limited and fails to recognise the range of professionals involved. The aim of this project was to investigate the experiences, attitudes and perceptions of different pre-registration health professions students undertaking an inter-professional ward simulation. Design: Mixed method pilot study with Diagnostic Radiography, Dietetics, Nursing, Occupational Therapy and Physiotherapy students from the Robert Gordon University, Aberdeen, UK. Outcomes: The Readiness for Interprofessional Learning Scale (RIPLS), focus groups. Results: Qualitative data indicates that a significant amount of learning occurred through the simulations. This related to learning about self, professional ability and skills and requirements for future practice. Further simulations are planned for October 2013.

1 Introduction

The Health Professions Council Standards of Education and Training (HPC 2009) dictate that all courses must ensure their graduates meet the standards of proficiency (SOPs) for their profession (HPC 2007). In line with this the SOPs direct that ‘...professionals should be able to work, where appropriate, in partnership with other professionals, support staff, service users and their relatives and carers’ (HPC 2007). This is mirrored by the Nursing and Midwifery Council who are responsible for regulating nursing and midwifery education in the UK (NMC 2008).

To facilitate this, inter-professional learning (IPL) has become central to all health professions training (Diack et al 2008). The Robert Gordon University has an established IPL programme with a variety of activities which includes group work around scenarios before progressing to activities in practice. D’eon (2005) indicates that students need to be challenged with progressively more complex tasks that reflect the reality of clinical practice and advocates creating ‘real’ case studies to make the IPL more valuable for the students.

Within health care education simulation provides the ideal opportunity to create ’real’ case studies. The use of simulated activities is well documented in medical education (McGaghie et al 2009, Issenberg et al 2005) and is currently being used widely in nurse education (McCaughey and Traynor 2010, Ricketts 2011). This use focuses on uni-professional skills based tasks and activities. To date there is little documented evidence for the use of simulation in the allied health professions with the paucity that exists focusing on aspects such as communication skills between physiotherapist and patient (Lewis, Bell and Asghar 2008), practical skill development (Hassam and Williams 2003, Jones and Sheppard 2011), understanding of conditions (Merryman 2010) and general learning (Velde, Land and Clay 2009) but not on wider team activities.

Ker et al (2003) implement an inter-professional ward simulation aimed to help students develop their communication skills and expose them to working with other health care team members. However, they investigated whether specific skills were completed with less focus on the team working aspects and ongoing learning needs identification. In addition only nursing and medical students were involved which does not reflect the real environment of a ward. McKimm et al (2010) piloted an inter-professional ward simulation for qualified nurses, doctors, speech and language therapists, pharmacists and dieticians. Although the students
achieved their profession specific objectives the facilitators felt that there could have been greater collaborative working during the simulation. There is, however, little specific detail of this activity so it is unclear how this collaborative working could have been developed.

Simulation is a labour intensive activity which is used extensively across the Faculty of Health and Social Care at the Robert Gordon University, Aberdeen, Scotland. Anecdotally we hear that students find simulated activities to be useful but there is a very limited evidence base to support its use out with medicine and nursing and even less evidence for inter-professional activities. This paper provides an interim report on a pilot study of an interdisciplinary ward simulation activity involving Diagnostic Radiography (DR), Dietetics, Nursing, Occupational Therapy(OT), Pharmacy and Physiotherapy(PT) students across a range of environments which would be commonly encountered in day to day practice within a hospital environment (ward, X-Ray department, gymnasium, kitchen).

The aims of the project were:
To investigate the experiences, attitudes and perceptions of different pre-registration health professions students participating in an inter-professional ward simulation
To investigate the impact of an inter-professional ward simulation on students' attitude towards inter-professional learning and skills development?

Objectives:
To explore the experiences, attitudes and perceptions of different pre-registration health profession's students undertaking an inter-professional ward simulation.
To explore if the students from the different professions value aspects of the simulation differently.
To explore the students perception of the role of the simulation in directing their learning in preparation for practice placement/ work experience.
To investigate the impact of the inter-professional ward simulation on students attitude towards IPL and skills development.
To identify the impact of the simulated activity on the student's next practice placement(s)/ work experience.

Only the results relating to student learning will be reported here. Other findings will be reported in a subsequent paper.

2 Method

A mixed methods approach was adopted to investigate the experiences of students undertaking an inter-professional ward simulation to ensure that such labour intensive activities are of perceived value.

The Readiness for Interprofessional Learning Scale (RIPLS) questionnaire (Reid et al 2006) was used before and after the simulation to identify if participation in a ward simulation activity changes the students perception of the importance of IPL. In addition focus groups were conducted with the students 2 weeks after they had undertaken the simulation to explore their experiences, attitudes and perceptions of the ward simulation activity.

Students in their fourth year of study on the diagnostic radiography, dietetics, occupational therapy, pharmacy and physiotherapy BSc(Hons) courses and year three of the BNursing course were invited to volunteer to participate once ethical approval from the university had been gained. Those who volunteered were asked to identify which of the planned simulations they could attend. For each simulation we required five nurses, four PT, two OT and two DR, one pharmacist and one dietician.
Immediately prior to taking part in the simulation student volunteers were asked to give their signed consent to taking part in the project and to complete the RIPLS questionnaire. Each profession was then given a hand over from a lecturer from their own profession who was acting as the ‘team leader’. No further help was provided by the ‘team leaders’ during the simulation.

The ward simulation involved nine volunteer patients who acted as a specific patient each of whom had a different problem and required intervention from one or more of the professions involved in the activity. The ‘patients’ were carefully developed to ensure that the situations were as realistic as possible and reflected practice. Outlines of the scenario were provided for the volunteers and full sets of nursing, physiotherapy and occupational therapy notes were provided as appropriate along with referrals for patients who required diagnostic radiography or dietetic involvement. The clinical skills centre at RGU has two six bedded bays, a nurses station, sluice etc similar to any ward. In addition it also has an OT kitchen and a diagnostic radiography suite. All of these were to be used in the simulation. Each simulation ran for 45 minutes with the students being responsible for running the ward. Staff from each profession monitored the activity via a digital camera system which is throughout the practical environment.

One week after taking part in the simulation students were emailed the RIPLs questionnaire and requested to complete it again. It was thought that this may give insight into whether the ward simulation had altered the student's readiness to participate in IPL. Through interacting with the inter-professional team student's views may change as they may not have prior experience of what inter-professional working is like in the real environment.

Two weeks after the simulation focus groups were be undertaken. To ensure that students had the opportunity to voice their opinions focus groups of between four to eight students were used. Standardised headings of topics to be addressed within the focus group were used and covered their experiences of the simulation and the learning that occurred. The focus groups were digitally recorded then transcribed and analysed.

2.1 Data Analysis

The framework method of analysis, developed in the field of applied social policy research (Ritchie and Spencer, 1994) was used to analyse the focus group data. Framework analysis facilitates rigour and transparency during the data management stages; aspects of qualitative research that are often criticised (Tobin and Begley, 2004). It also leaves a clear audit trail of the analysis process, which is desirable in qualitative research. All three main stages of framework analysis were employed:

Data management: familiarisation with the data, noting of recurrent themes, construction of an index, labelling the data with the index, sorting the data by theme and summarising it in matrix based charts. NVivo qualitative data analysis software was used to facilitate labelling the data and Microsoft Excel used to construct the matrix based charts.

Descriptive analysis: identifying, categorising and classifying the data.

Explanatory analysis: exploration of links and subgroups within the data.

After transcribing the focus groups, the principal investigator developed the initial coding index, which facilitated familiarisation with the data. The transcripts and initial coding index were then be reviewed by the rest of the research team in order to develop the coding index by consensus. The final coding index was then applied to the entire data set. Inter-rater reliability was evaluated and any disagreements were resolved by discussion and consensus to minimise bias and enhance the trustworthiness of the data (Barbour, 2001; Richards, 2005). For the same reasons, both the principal investigator and research team were involved in the data analysis.

Descriptive data for pre and post simulation readiness for IPE is provided by the RIPLs questionnaire which covers many different aspects of readiness for IPL. Additionally
extensive qualitative data was gathered therefore only data relating directly to learning is reported here.

3 Results

Two ward simulations have now been undertaken and in total 20 students have taken part. The target and actual student volunteers from each profession are shown in Table 1.

Table 1: target and actual student involvement in simulations

<table>
<thead>
<tr>
<th></th>
<th>DR</th>
<th>Dietetics</th>
<th>Nursing</th>
<th>OT</th>
<th>PT</th>
<th>Pharmacy</th>
</tr>
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<td>Target</td>
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<td>2</td>
<td>10</td>
<td>2</td>
<td>8</td>
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<td>4</td>
<td>2</td>
<td>5</td>
<td>2</td>
<td>7</td>
<td>0</td>
</tr>
</tbody>
</table>

All students completed the RIPLs questionnaire prior to undertaking the simulation and took part in the focus groups. One nurse, one DR, one dietetic and 2 PT students failed to complete the questionnaire post simulation and their pre simulation results are not reported. Results for the RIPLs questionnaire are shown below in Table 2 as frequency of responses pre and post simulation.

From analysis of the qualitative data students reported that they had learnt about themselves and their own learning needs for the immediate future but also for the longer term future once they were qualified. They had also learnt from managing new and unfamiliar situations and about their own ongoing learning needs.

3.1 Simulation as a Learning experience

In the focus groups the students reported frequently on the learning they had gained from the simulated experience. Comments related to learning about themselves and traits that they need to alter to make themselves a more effective practitioner (Quote 1 and 2 Box 1) to developing skills that will be required of them as graduates and future professionals (Quote 2 Box 1).

Table 2: RIPLs results

<table>
<thead>
<tr>
<th>statement</th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Undecided</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shared learning will help me think positively about other health and social care professionals</td>
<td>9 Pre 8</td>
<td>5 Pre 7</td>
<td>1*</td>
<td>4 Pre 7</td>
<td>11 8</td>
</tr>
<tr>
<td>For small group learning to word students need to respect and trust each other</td>
<td>7 Pre 10</td>
<td>5 Pre 7</td>
<td>1*</td>
<td>4 Pre 7</td>
<td>11 8</td>
</tr>
<tr>
<td>I would welcome the opportunity to work on small group projects with other health and social care students</td>
<td>2 Pre 5</td>
<td>10 Pre 7</td>
<td>2* 1</td>
<td>1*</td>
<td>4 Pre 7</td>
</tr>
<tr>
<td>I don't want to waste time learning with other health and social care students</td>
<td>4 Pre 7</td>
<td>11 8</td>
<td>6 7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>It is not necessary for undergraduate health and social care students to learn together</td>
<td>1 Pre 1</td>
<td>8 Pre 7</td>
<td>6 7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shared learning will help me</td>
<td>3 Pre 4</td>
<td>9 Pre 10</td>
<td>3* 1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
clarify the nature of patients or clients problems
Shared learning with other health and social care students will increase my ability to understand clinical problems
Clinical problem solving can only be learnt effectively with students from my own school.
Communication skills should be learned with other health and social care students.
I would welcome the opportunity to share some generic lectures and tutorials with other health and social care students
*indicates a positive change in view about IPL
~indicates a negative change in view about IPL.

Box 1: Personal traits
Quote 1: "I actually learned about myself ... Just things about like, you know, self awareness, knowing when to talk, know when to butt in, knowing when to, to hold back. Um, and just kind of little basic things as well, like, forgetting basic health and safety issues or, you know, um, you know, manual handling equipment, just, it was just a really good experience to get thinking..."

Quote 2: "I need to be a bit more assertive and that has been brought up in placement before and I thought it might be different if I was on my own and wasn't being assessed, but apparently not."

Quote 3 "... yeah, I think it's just being confident, forcing myself to be more confident in the decision that I'm making and that I need to practice sort of that kind of side of things.

Quote 4: "...Like, being able to have the confidence to say who you want to see and why you want to see them, and when you want to see them.

Box 2: Professional Skill Development
Quote 1: (talking about what has been learnt)...How to prioritise your tasks because I'd never kind of thought about it before but when I went in I kind of realised, right, neuro-obs needs done first, then it's pain assessment and the other person, ...you kind of realise what's important, what's jumping at you and what's not because on placements sometimes you pick the most rubbish thing that needs to be done last and you do that first ... so it's quite nice to, right, you're by yourself, this is how you manage it and it - although it's chocking you in at the deep end a little bit it's still good because then you realise, okay, I can do this."

Quote 2: DF  Um, yeah, it's, clinical reasoning with patients; you're thinking about timing your treatments, um, thinking right, what can I get done in this time and then get on and see the next patient. And you're prioritising your patients as well when you're on the ward so you're looking at a patient and thinking, right, he's going to take priority... I've had to do that briefly before but I've never really taken a role in it and prioritised patients whereas the clinical educator's always been doing that."

Quote 3: "being given a group of patients to manage and, yeah, just practicing how to deal with things as they come up and stuff... I think it's highlighted weaknesses in what you know
and you get a bit just sort of used to there being lots of other nurses to ask, you know, because you're the student."

Quote 4: "It just gives you a really good exercise to look at your skills, look what you have to work on, what you have to reflect on."

Quote 5: You learn that you're still very much in the novice stage of developing your skills. So it kind of gives you the idea of what, when you go on placement, you need to, you know, like it addresses your learner needs on placement."

3.2 Learning for Future Practice

An important issue which came from the focus groups related to how the students had the opportunity to further develop their skills in the 'real environment' but in a safe way where patients were not put at risk:

Quote A "There was a mistake, I was mobilising a patient on the ward. I had the wheelchair footplates and, um,... another member of staff walked down and tripped on the footplates. (facilitator) It wasn't the footplates. It was the walking stick that you had lying across the floor. So things like that, I'd rather do that in a clinical practice setting as opposed to an actual hospital... It's wee things like that that you're going to learn from in a setting like that..."

Another student reported:

Quote B "When you're just thrown in you're obviously going to make mistakes but you learn from those mistakes from dealing with that and you're not going to make it again. You might make another mistake the next time and again you learn so it's just experience which will be good because when we do graduate we'll have made those mistakes here instead of out there."

Several students reported that the simulation provided them with practice so that they would be better able to achieve in clinical practice:

Quote C "...doing this is like a little step forward ...and gets you on the bridge a bit quicker than just straight up on placement, here you go, type thing so... it's good in that way."

One student reported "Uh, it was a little bit nerve-wracking I think at the start before we went in because we just didn't know what to expect. Again, you learn best when you're out of your comfort zone so that's kind of a good way there." clearly identifying the need to challenge a student to facilitate their learning.

3.3 Learning from New Experiences

Several students reported that they had experienced new situations that were highly relevant to their practice and the demands of their next clinical placement. In reporting on these situations they all mentioned the benefits of experiencing the situation before going on placement so that they were better prepared and could perform more effectively when it really mattered and real patients were at risk:

Quote E "I think it was a good learning experience because obviously there were some things that happened that we hadn't experienced on our clinical placements to date..."

Of interest was that students could see how this activity was preparing them for graduation:

Quote F "I quite enjoyed it; I think it's a good, like, reflection of what practice will actually be like because we were all, kind of, working independently....like even if you're working on your own and in practice placement, there's always someone higher up that you can, kind of, rely on and ask. Whereas because we're all students it was like an equal balance."
3. 4 Possible Future Developments

Possible developments for the simulated activity were also identified by students who reported it may be beneficial to be exposed to the activity in earlier years but to have more senior students acting as clinical supervisors, Box 3.

Box 3: Future Developments

Quote 1”... That could be quite a good thing to target at first years before they go out in their first placement. Because I know not all of them will have ward-based placements for their first one, but they will at some point... (facilitator- Do you think first years have enough underpinning to be able to cope with an activity like that?)... But then again you've been sent out to a ward in first year regardless. And you have to encounter some of these situations. Maybe not Respiratory or Neuro, because they wouldn’t have covered that, but if it was community or Orthopaedics based."

Quote 2”... (relating to a comment from a clinical educator) I had that fed back to me from my last.... Not about me, it was, she'd just had somebody who was on their very first placement and ...he just was so overwhelmed by the, being in a ward that he was, kind of, wanting... he knew what he wanted to do, but it was he didn't know how to go about it in that sort of situation."

Quote 3 "...It would be beneficial for every year. Because you have to go out on placement every year, so I think it would be very beneficial... "

Quote 4 "...You're getting an idea of how a ward is run. You're getting an idea of interdisciplinary team working... And then when you're a fourth year the whole idea of priorities like, um, prioritisation as well, and that level of responsibility you'll have when you actually are qualified."

Quote 5...I like that idea a lot ... we're not going to have students with us immediately, like, depending on your banding and things, but we will have to learn how to adapt to actually take on the mentoring role. I think that's quite a good idea to, sort of, get us into that frame of mind before we graduate.

4 Discussion

The data collected to date indicates a very positive response to the simulated ward experience. The students could clearly see benefits from learning and working together and how the simulation could help them progress to the qualified professional that they would, hopefully, become in the near future.

The RIPLs data shows very few large shifts in views about the benefits of learning together. This is reassuring since these students have been involved in IPL since commencing their course. It also suggests that the IPL, both formal in university and informal on placement, has shown students the importance of the team. In a minority of instances students did change their views about learning together and except in one instance this was a positive shift where students moved from being undecided or disagreeing about the importance of learning together to realising its importance (Table 2). There was only one instance where a student developed a more negative view (Table 2 response marked ~) and even this was only to undecided. One student remained undecided about the benefits of IPL in the majority of questions. This student may not perceive the benefit until they are actually in practice but the fact that they are undecided is more reassuring than if they disagreed that IPL was of benefit.

The qualitative data clearly shows that students learned from taking part in this experience. All students reported that they had learnt something and many reported learning several
things. It is possible that this activity was effective at helping the learning process as it replicated the real environment (Fry, Ketteridge and Marshall 2000) but was entirely safe (Maran and Glavín 2003 and Murray et al 2008). Interventions wrongly applied would not impact on the volunteers as they could on real patients so mistakes could be made and learned from, something noted by two physiotherapy students (quotes A and B above).

Much of the learning achieved was from self-evaluation and reflection, skills that are very desirable as graduate attributes (Housell 2011). These skills ensure that on qualification the clinicians will be equipped to ensure ongoing professional development, an essential to ensure they maintain quality patient care but also to maintain ongoing professional registration (NMC 2008 and HCPC 2012). It also enabled them to identify personal traits which would benefit from being developed or adapted to help them become more effective practitioners (Box 1).

In addition to developing these graduate attributes the students also reported that they had the opportunity to develop some of the skills that are essential for them to demonstrate in their final placements as they are core to the independent practice of the qualified professional. Several students commented on how the simulation and lack of supervisor support forced them into autonomous decision making and how this could be quite daunting (Box 2). Prioritisation skills formed part of this autonomous decision making as the students were fully responsible for planning which patient(s) to manage first to ensure that the staff time was effectively used but also ensuring that patient needs were optimally met. They also had to take full responsibility for their treatment choices and other decisions. These are requirements of the Nursing and Midwifery Council and Health Professions Council for entry level practitioners but quote C above shows how one student reported this activity would help them attain this level more effectively on placement as they knew what this responsibility felt like and had the opportunity to establish that developing their underpinning knowledge would help them gain this confidence.

Students also reported that they experienced situations they had not encountered in practice. While on practice the experiences student get depend on entirely what patients are available either on the ward if working in an acute environment. This means that some really valuable learning opportunities cannot be guaranteed. Simulated learning opportunities such as this can provide this exposure and this has already been reported in literature

Interestingly students identified how the activity could be further developed to facilitate their skills development in aspects of practice that they would only experience once qualified for example mentorship of students and other staff (Box 3). Involving first year students would help prepare them for their first placement experience. It would provide them with the opportunity of experiencing the clinical environment and what is expected of them in a safe environment with less stress as the patients were not real, enabling them to gain some confidence. It would also provide more senior students the opportunity to experience what it is like to mentor a student in the clinical environment, something that they will be expected to profess to once working clinically. An additional advantage is that it would enable the junior students to see what level they will attain as they progress through the course.

### 4.1 Limitations

To date only 20 students have participated in the simulation. This may in part be due to the challenges of being on two campuses at the present time. Pharmacy students may have been less inclined to participate as they would have to travel to get to the clinical skills centre. Staff also identified that there may be research fatigue in some student groups, particularly nursing and pharmacy. Students who participated this year were keen to help recruit for subsequent simulations so it is planned to ask them to do a little audio recording to reflect their positive experiences and that this will be played when speaking to students
about the opportunity next year. It is already planned to undertake another two simulations in October 2013 to achieve the planned recruitment.

5 Conclusions

In recognising the labour intensive nature of such an activity, the data presented in this paper suggests that students view this type of activity as a very valuable learning experience. The benefits highlighted in the focus groups went beyond the immediate learning for placement and were perceived to impact into future working life, as a qualified professional. They also suggest that this could be enhanced by developing the simulated activity across several year groups. Further simulations for final year students will take place in October 2013 and interviews with students about any potential impact on the clinical performance from participating in the simulation will be gathered over early summer. This will also help inform future decisions on this activity.

References
Capturing organisational knowledge from Educational Enhancement: Identifying Patterns for Curriculum Innovation

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ABSTRACT: On-line and blended learning is much fêted, particularly by university management as part of the solution to many issues currently facing higher education. However, experienced academics lack examples of suitable pedagogically engaging on-line activities, and remain sceptical or resistant to change. This paper describes a case study of an initiative taken by a newly formed centre with responsibility for introducing such change within a university. It uses a single module to demonstrate a range of on-line activities blended with conventional face-to-face approaches which may then be presented to staff as reusable patterns with generic applicability. At the same time we show how these approaches can meet the requirements of the university management.

1 Introduction
The changes and initiatives recounted in this case study take place in a large English, research intensive university, however the observations are relevant to institutions of all types, shapes and sizes. Every teaching programme is likely to undergo incremental change in response to environmental contexts such as student feedback, reflective monitoring and changing and emerging practices, knowledge and understanding. Systematic periodic review or widespread changes in the student cohort can also bring changes which range from minor innovations to widespread redesign.

The authors of this paper, as well as being lecturers in Computer Science are the Director and an assistant Director of the Centre for Innovation in Technologies and Education (CITE www.cite.ac.uk), which has recently been created to take responsibility for research in Technology Enhanced Learning (TEL), horizon scanning, strategy and deployment across the University. In attempting to encourage and support the uptake of on-line and blended learning in the University, it became apparent that many academics and programme teams had little exposure to the possibilities afforded by TEL, and were unable to imagine the kind of authentic on-line activities that we were advocating. For this reason we decided to use the course we would be teaching as an exemplar of a number of different activities, from which to extract generically re-usable patterns.

The module, Professional Development, is itself quite generic, mostly concerned with learning, skills and employability topics which will appear in many degree programmes in one form or another. Features identified in the case study combine aspects of incremental change with a more widespread external impetus for change, brought about by a programme wide revision of taught modules.

The development team comprises learning designers working in partnership with the authors, who are established and experienced academics. The academics, Davis and White contribute disciplinary expertise with extensive practical and academic experience of implementing curricula and technological innovations (2004, 2005, 2007). Since the team is working under the auspices of CITE, capturing the details and experience of the process is an objective of equal importance as the ultimate success of the project from the students’ perspective. Workflow analysis is a strong component of the approach. Further challenges arise in making the optimal use of the institutional learning environment alongside Open Educational Resources (OERs), real world tools and the institutional teaching and learning repository (EdShare http://www.edshare.soton.ac.uk). White et al (2013) have provided a
2 Background and Motivations
The innovation came about through the routine review and revision process of curriculum design. A need to standardize the size of modules across the university meant that two existing undergraduate modules, previously taught in different years and essential for professional accreditation needed to be combined into one single module taught in the first year of study. Not only did the modules deal with professional, legal and ethical issues, they also addressed the development of academic and professional skills and were designed to support students to develop an understanding of their own preferred approaches to learning.

2.1 Institutional Priorities
As was explained in the introduction, this work is part of a set of initiatives developed with the support of CITE. These initiatives are expected to act as patterns or exemplars, which as well as addressing pressing local needs, also realise benefits for the university, which can be demonstrated against the framework shown in Table 1.

Table 1: Institutional benefits framework (from analysis of successful internal project funding)

<table>
<thead>
<tr>
<th>Impact Areas</th>
<th>Specific/ Generic</th>
<th>This Case</th>
<th>Objective</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student Learning</td>
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<td>✓</td>
<td>Increase the active participation of students to take more responsibility for their own learning</td>
</tr>
<tr>
<td></td>
<td>S</td>
<td>✓</td>
<td>Introduce situated technologies which develop students’ mastery of digital literacies</td>
</tr>
<tr>
<td></td>
<td>G</td>
<td>✓</td>
<td>Address needs of students learning on and off campus simultaneously</td>
</tr>
<tr>
<td></td>
<td>G</td>
<td>e</td>
<td>Increasing student performance</td>
</tr>
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<td>Student Experience</td>
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<td>e</td>
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<td>Saving use of specialist equipment</td>
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<tr>
<td></td>
<td>G</td>
<td>p</td>
<td>Extend reach of education on-line to wider audiences</td>
</tr>
<tr>
<td></td>
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<td>p</td>
<td>Extend reach of education in remote campuses / on line</td>
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<td>G</td>
<td>p</td>
<td>Scalability to larger classes</td>
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<td>S</td>
<td>✓</td>
<td>Reduce demand on large lecture theatres</td>
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<td>Institutional Indicators</td>
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<td>S</td>
<td>e</td>
<td>Increasing student satisfaction</td>
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<td>e</td>
<td>Increasing student performance (attainment, retention, progression)</td>
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<td>S</td>
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<td>Improved employability</td>
</tr>
<tr>
<td>Faculty Benefit</td>
<td>G</td>
<td>e</td>
<td>Decrease workload, enhance efficiency</td>
</tr>
<tr>
<td></td>
<td>G</td>
<td>✓</td>
<td>Reduced teaching time</td>
</tr>
<tr>
<td></td>
<td>G</td>
<td>✓</td>
<td>Reduced admin/workflow management time</td>
</tr>
<tr>
<td></td>
<td>G</td>
<td>✓</td>
<td>Reduce assessment marking time</td>
</tr>
</tbody>
</table>

Key: G: Generic; S: Specific; ✓: explicitly addressed and to be evaluated; e: consequential benefit which needs to be evaluated; p: potential benefit, not explicitly evaluated at this time

This benefits framework was not constructed from the top down, but rather engineered from the bottom up, by inferring from the history of strategic funding agreed to develop education, the list of operational priorities which prevail in the university.

The two lead academics had both been module leaders for the predecessor modules. These academics specifically wished to incorporate activities which would actively develop practical
approaches established by Harris et al (2010) to cultivate students' digital literacies and to introduce students to the idea that they might be preparing for jobs which did not yet exist. Although it might be expected that students of computer science and IT would have high level of computer literacy, it had been observed that there was some variability in the extent to which such students understood the potential value or importance of generic IT tools. Similarly there was variability in how effectively students operated in their online behaviours and practices. Since the students would be graduating and very likely working in environments where awareness of current technologies would of itself be a valuable capability, developing proficiency and deep understanding of the 'technology affordances' of new tools, was considered particularly relevant to the learning outcomes of the wider degree programme. The module redesign sought to address these issues and the team were keen to incorporate assessment activities which developed what Boud and Falchikov (2005) describe as "the kinds of highly contextualised learning faced in life and work".

Sharples et al (2012) from the UK Open University have observed that the current pace of change of innovative pedagogy is rapid and wide ranging. The academics at Southampton wanted the module to incorporate the use of current and emerging popular technologies. It also needed to be highly interactive, combining online preparation, lectures, self and peer assessments, computer assisted assessment and portfolio preparation. A special challenge for the change is to make effective use at the available standard platforms while at the same time being able to incorporate learning from external innovations over time.

2.2 Introducing and managing change
The module redesign was one of three activities selected by CITE which would act as a demonstrator or proof of concept for appropriate and effective integration of technology into face to face teaching activities common on a campus based university. The methods employed needed to demonstrate to colleagues in other parts of the university the strengths and advantages of the change. A simple summary of effective methods for working in academic contexts was proposed and developed by Geoghegan (1994,1997), building on earlier studies of innovation from Rogers' classic 'The Diffusion of Innovation' (1983) and Moore's 'Crossing the Chasm' (1991).

The approach to innovation taken by CITE has been heavily influenced by previous institutional wide approaches to introduce and sustain change in the university reported by White (2007), which itself drew heavily on those earlier works.

Table 2: The needs of early adopters vs. the mainstream, adapted from Geoghegan 1994

<table>
<thead>
<tr>
<th>Early Adopters</th>
<th>Mainstream</th>
</tr>
</thead>
<tbody>
<tr>
<td>Like radical change</td>
<td>Like gradual change</td>
</tr>
<tr>
<td>Visionary</td>
<td>Pragmatic</td>
</tr>
<tr>
<td>Project oriented</td>
<td>Process oriented</td>
</tr>
<tr>
<td>Risk takers</td>
<td>Risk averse</td>
</tr>
<tr>
<td>Willing to experiment</td>
<td>Need proven uses</td>
</tr>
<tr>
<td>Self-sufficient</td>
<td>Need support</td>
</tr>
<tr>
<td>Relate horizontally</td>
<td>Relate vertically</td>
</tr>
</tbody>
</table>

Geoghegan adopts a socio-technical perspective which differentiates between the needs of early adopters and the needs of the mainstream. Key features of those differing needs are summarised in Table 2. The considerations highlighted by Geoghegan, have also been influential in guiding the redesign exercise.

2.3 Design Patterns
Alexander et al (1977) introduce the concept of using of replicable design patterns which emerged from the work of architects and which has become a powerful idea among software
developers, who like architects need to design to solve specific problems at the same time as addressing specific needs of the client.

The development of blended learning can be considered as a special case of software design. The same arguments for identifying and recording patterns have already been applied in an educational context by Goodyear (2005) and Goodyear and Retalis (2010). Design patterns can provide a powerful means to articulate replicable and pedagogically clear responses to recurrent educational problems. It is intended to use the patterns to expose approaches in a clear and systematic manner. The development team are working to identify design patterns within the curriculum design process.

Taking into account the needs of the majority, and the experience of working with patterns in an educational context, the CITE team are of the view that recording and analysing the processes in the form of patterns which are specifically designed to be replicated are essential if the example innovations are to be of longer term value to the university.

3 Redesigning the curriculum
The curriculum development team incorporates experienced academics, learning designers and student interns. Graduate teaching assistants and interim evaluators who have previously been taught on the matching and preceding modules are also engaged in the team to provide integrative evaluations.

The module is taught during one twelve week semester to a typical cohort 150 students studying on three different but closely related degrees, all accredited by the British Computer Society. Two academics and one teaching assistant are responsible for the teaching and assessment during the first year in which the module has been presented to students.

An initial plan of topic areas and the sequence which students would be expected to follow was created at the same time as defining and refining the agreed learning outcomes for the module. The module learning objectives expect students to develop and demonstrate:

- an understanding of legal, ethical and professional issues relevant to an IT specialist during their working life;
- student's personal learning preferences;
- an ability to research and communicate technical information;
- incorporate objective reflection and critical evaluation of their own and other's work in their routine learning practices.

Skills relevant to employability are also of high importance and are a sub-text to many of the academic and learning activities. The formal syllabus description presented to the student summarises the module as follows:

| The aim of this module is to help students develop an understanding of the fundamental professional, ethical and legal issues, how they are being developed and applied. The lectures, on-line activities and associated courseworks will involve an active approach to the module content which is designed to develop a sound and personally relevant understanding of these issues. A further aim is to provide the opportunity for students to experience a realistic approach to individual learning close to that adopted by researchers and professionals in the computing and IT domain. This approach aims to enable them to develop individual approaches to independent learning, identifying personal preferences, strengths and weaknesses |

The teaching methods of the predecessor classes are a mix of large active lectures (~150) and small group sessions (6x ~25). The revised module has replaced small group activities with guided online private study. The new module could be allocated three lectures per week, but the redesign has incorporated only one formally scheduled lecture and one
feedback lecture slot used as requested or deemed necessary by the academics. Table 3 summarises of the changes

Table 3 Student activities and assessments

<table>
<thead>
<tr>
<th>Original Modules Individually</th>
<th>12-13 Additions/Changes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Prepare a CV</td>
<td>✓ m Peer review CVs</td>
</tr>
<tr>
<td>1 Research and write a technical report</td>
<td>✓ m Reflect on CV</td>
</tr>
<tr>
<td>1 Non assessed - tutor led small group activities which rehearse and discuss processes needed for assignments</td>
<td>x</td>
</tr>
<tr>
<td>2 Prepare an annotated bibliography</td>
<td>✓ m Mark a sample technical report</td>
</tr>
<tr>
<td>2 Demonstrating basic legal understanding via an online test</td>
<td>✓ m Peer review and contribute revised work to a shared bibliography</td>
</tr>
<tr>
<td>2 Undertaking an open book exam evaluating professional issues in a seen case study</td>
<td>x</td>
</tr>
<tr>
<td>1 An online Academic integrity tutorial and test</td>
<td>✓ m An end of module online test which checks basic legal understanding plus other understandings studied independently during the module</td>
</tr>
<tr>
<td>N</td>
<td>✓ m Some aspect of open book preparation retained in final online exam</td>
</tr>
<tr>
<td>N</td>
<td>✓ m Made into a formal assessment rather than recommended activity</td>
</tr>
<tr>
<td>N</td>
<td>✓ m Prepare an individual portfolio, identifying and evaluating personal skillset</td>
</tr>
<tr>
<td>N</td>
<td>✓ m Research and prepare a group presentation on a legal, ethical or technical topic</td>
</tr>
<tr>
<td>N</td>
<td>✓ m Peer review and contribute revised work to a shared bibliography</td>
</tr>
<tr>
<td>As a group</td>
<td>✓ m Requested via group discussion, scheduled if responses are complex or unresolved by online discussion/email</td>
</tr>
</tbody>
</table>

3.1 Institutional Constraints

The blended system was subject to a number of constraints at the design phase. As a university demonstrator it was essential that use is made of the established technology infrastructure. That infrastructure comprises a mix of commercial products and local written software which is specific to the university (Table 4). While traditional user guides and training exist for these resources, the objective of generating and capturing patterns is an essential component of this exercise in curriculum development. The module needs to use and test the capabilities of existing infrastructure, and provide useful and usable information for our academic colleagues in the future.

Table 4: technology constraints imposed by existing systems

<table>
<thead>
<tr>
<th>Type</th>
<th>Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commercial products</td>
<td>Blackboard</td>
<td>Virtual learning environment</td>
</tr>
<tr>
<td></td>
<td>Turnitin</td>
<td>Plagiarism, grading and peer review</td>
</tr>
<tr>
<td></td>
<td>QuestionMark</td>
<td>High stakes assessment engine</td>
</tr>
<tr>
<td>Local tools</td>
<td>EdShare</td>
<td>Open educational repository</td>
</tr>
</tbody>
</table>

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Alongside the existing supported infrastructure there was a need to introduce and familiarise students with the use of authentic tools in a contemporary way what Morris et al identified as ‘worldware’ (1994) which is relevant to skills needed for ‘living and working on the web’; a phrase from a Curriculum Innovation module led by our colleagues Lisa Harris and Fiona Harvey www.southampton.ac.uk/cip/studentcurriculum/newmodule/digital_literacies.page

Building on existing experience within CITE the learning design team is basing their approach on an adapted version of a co-design and co-deployment methodology which has been successfully used by Millard et al in previous projects at the University (2009). This is being realised as follows: a) Developing use cases which directly align with the module learning outcomes. b) Integrating a Learner Context approach adapted from Betty Collins’ (2011) Learning Footprints.

The structure which emerged was able to address the priorities of pressure on teaching space and the academic workload caused by assessments. Although three lecture slots are nominally allocated to a module of this size, only two were used, one for a weekly pacing and motivational lecture, and one for a feedback lecture. The act of merging two modules resulted in a 75% reduction in notional hours of study compared to the predecessor modules. It was clear from previous evaluations and discussion with students that the previous practice had not made working time for these modules a high priority. The academics involved were therefore keenly aware that it would be necessary to carefully engineer the workflow and the learning activities to ensure that the students actually invested an appropriate amount of time to this module.

A series of self assessment activities have been scheduled, also designed for pacing. The university VLE was used to drive the workflow, which we also plan to use to derive learning analytic data. The self/peer assessment approach was inspired by Hamer and Kwong (2005) who describe how online tools have been used to automate peer marking based on a model developed in New Zealand using Turnitin to manage the process.

All resources are stored in, or linked into the institutional teaching repository EdShare (edshare.soton.ac.uk) ensuring they are available after the academic year-end, and after graduation. An end of module exam online is designed to test and validate the achievement of learning outcomes documented in the personal portfolio or undertaken through guided independent study. Using automated testing demands extensive preparation work before the assessment is administered however this team generated reusable resource which reduces workload pressure on individual academics during the inevitably very busy marking period.

4 Interim Observations
The first presentation of this module to students was still underway at the time of writing. A plan for evaluation and formal reflection exists, some interim feedback from students has been gathered. The redesign of this module has benefited from the collective effort which was possible through the participation of learning designers.

The content of this module, and the method in which it is presented to the students has for the most part shifted the emphasis in student learning towards structured online activities which are a prelude to face to face lecture classes. Although it does not conform to the model of a video led ‘flipped classroom’ approach, it does subvert the traditional pattern which predominates in the STEM based subjects at this research-intensive university.

4.1 Patterns
A number of activity patterns have thus far been identified, they are expressed as syllabus items to remove the contextual aspect of their place in the module:

<table>
<thead>
<tr>
<th>Syllabus item</th>
<th>Pattern</th>
</tr>
</thead>
<tbody>
<tr>
<td>Library and information skills</td>
<td>Micro activities; WebQuest</td>
</tr>
<tr>
<td>Academic integrity</td>
<td>Mini-MOOC with required quiz</td>
</tr>
<tr>
<td>Report writing</td>
<td>Learning by marking, self review; peer review</td>
</tr>
<tr>
<td>Personal skills</td>
<td>Skills audit; E-portfolio task to identify skills gaps</td>
</tr>
<tr>
<td>Self presentation CV and LinkedIn profile</td>
<td>Self evaluation</td>
</tr>
<tr>
<td>Group working</td>
<td>Produce group presentation under difficult time</td>
</tr>
<tr>
<td>Time management</td>
<td>constraints to required standards; internal team evaluation</td>
</tr>
<tr>
<td>Project management</td>
<td>Subject of group presentations; Annotated bibliographies</td>
</tr>
<tr>
<td>Sustainability, ethics, legal issues, professional bodies/ codes of conduct</td>
<td></td>
</tr>
</tbody>
</table>

Micro activities: These activities were taken from our University's existing study skills toolkit. They are short interactive exercises, with frequent objective or self evaluation tests, each of which might take around 20 minutes, and which teach subjects such as citing and referencing, selecting and evaluating the provision of papers from searches etc.

WebQuests: A webquest was created for the course, incorporating the excellent "Internet Detective" tutorial from the University of Bristol ([www.vtutorials.ac.uk/detective](http://www.vtutorials.ac.uk/detective)) which encouraged students to search and evaluate a set of suitable reference materials for a chosen topic. The Webquest is subject-independent and could be used in any discipline-

Mini-MOOC with required Quiz: The course contains a quiz (on academic integrity) which must be passed (with 90% pass mark) in order for students to progress. The quiz may be attempted on multiple occasions but questions are selected from a question bank so that simply learning the answers is not a realistic option. The students are provided with multiple sources, including two podcasts prepared by the library, some interactive micro-activities, the Student Union's guide to academic integrity and the official university rules and statements on AI. This quiz has questions relating to Computing, but the exercise could be and already has been converted for use in other disciplines.

Skills Evaluation: Students were asked to complete a the VIA Institute Character Strengths Survey, then to reflect on the skills they demonstrated, and the skills they needed to develop using an ePortfolio. This was in preparation for producing and developing their CVs. Self and Peer Evaluation: An extremely important outcome of the course is the development of criticality and objectivity. We aim to help the students to take greater responsibility for their own learning, by developing self-critical skills. We ask students to demonstrate self evaluation in three ways:

All Blackboard activities have a self-assessed completion checkpoint. Students are asked to confirm that they have successfully completed each activity, and that they need no further help or feedback. If they need feedback, they are encouraged to specify their problem and we arrange to meet them face-to-face to provide help. (This option was used very little).

For the technical report, we provided a detailed (and well used) marking scheme specifying the typical characteristics for each grade under a number of headings (report structure, report content, quality of writing, use of references etc.) and we asked the students to learn to grade existing reports, and then comparing their grades with grades awarded by experienced staff. When they had learned to do thus, they were then invited to write their own reports and to grade both their own report and two other peer's reports.
In producing their CV's students were given examples of poor CVs and good CVs, along with detailed criteria for creating good CV. They were then asked to create their own CV and to comment on what it would take to improve their CVs.

All of the above activities from a re-usable pattern that is discipline independent, although the exemplar reports and marking schemes may need choosing for the discipline.

Groupwork, Time Management and Presentation Skills: In order to develop the above, we asked students to give group presentations, working in their tutor group of typically 5-8 people. The presentation topics were deliberately distributed one week before the Easter vacation, and the presentations were to be done one week after the Easter vacation. This devise put pressure on the students to get their groups together early and required them to work well as teams to have quality presentations ready in time, and possibly needing them to continue some virtual team communication over the vacation. The presentation topics were all concerned with the parts of the course surrounding Sustainability, Ethics and Legal Issues, and since all students were required to present in one session and form a peer review audience for another session, they were able to see presentations covering a wide part of the syllabus.

Annotated Bibliographies: This task involves preparation for future writing activities, incorporating an introduction to and practice in reading and summarising academic texts. The mechanics of providing a set of baseline documents for initial review and then allowing the student free choice in selecting additional texts is a logical follow on from the initial information skills activities. Peer review and self-evaluation are also incorporated restating the meta-learning objectives of developing criticality and reflective skills.

In creating this course we have thus demonstrated a number of shareable patterns of educational strategies which possess only small discipline specific features. The next stage is to formalise the patterns and to assemble a peer review panel for scrutiny and revision. By initially sharing and refining our patterns we will also establish an informed network of colleagues who will be able to disseminate and validate the use and relevance of the patterns within their own fields of study. We also anticipate using this process as a means for acquiring further patterns from other contexts. We anticipate a six monthly review cycle, integrated with reporting from the CITE team to be used as a means to establish this as a routine working process associated with educational innovation at the university.

5 Conclusions and Future Work
This case study presents a work in progress. Although that does not preclude interim reflection and the documentation of learning from the process, a formal evaluation remains to be conducted. The intention is to compare student feedback and evaluation with the experience in the two predecessor modules, to conduct semi structured interviews with the actors involved in the development and teaching aspects of the module development. Further evaluation will be conducted via a research survey and focus group discussions.

Table 1 described the framework to evaluate the institutional benefit of educational innovations. This module, after an initially high start up cost will run at a significant saving to the university in terms of the staff time for lecturing, supporting students and assessment. It also uses one third of the time in large lecture halls (space is at a high premium on campus). At the same time, as the result of increased use of self-review and peer-review the students have been required to engage with a wider range of learning, and at a deeper level. Initial reviews demonstrate increased student satisfaction with this aspect, although we had the usual initial concerns about the use of peer review to provide summative marks. Previous experience has shown this will be less anxiety inducing for students in subsequent years, as the experience of fair and equitable final outcomes are communicated from year to year.
There will be further revisions and refinements made to the module which will be monitored. Formal estimates of time and effort components will be made. Teaching staff are satisfied by the quality increases in all work except the face-to-face group presentations, which had suffered from the lack of small group presentation tutorials usually delivered in previous version of the module. The tutorials were time consuming to deliver to such a large class, but will be considered next year in order to improve on current results. A realistic understanding of the cost of innovation and routine development of modules is a valuable piece of organisational knowledge which provides context to the patterns in their bare bones form.

For Southampton, further external pressures have emerged since the start of these innovations which extend the potential value of the design pattern approach. The university has committed to work with FutureLearn (futurelearn.com), during to produce two MOOCs and around six further 'mini MOOCs'. Lessons learnt in the design assembly and delivery phases with MOOCs will need to be captured and compared with experiences in more conventional educational settings. Institutional expertise and knowledge has been generated by the process of mixed team development, and identifying and refining design patterns. It is hoped that this will be as useful to the early adopters engaged in the MOOC developments as they are to more cautious colleagues who are engaged in the relatively low-profile activities of new programme and module development, and curriculum innovation within the more familiar context of students registered and attending on the main university campus.

6 Acknowledgements
The work in this paper could not have taken place without the support of the University of Southampton's Centre for Innovation in Technologies and Education (CITE), The hard work of and the insights and reflections of our student intern Kirti Kushlani was been invaluable, and the whole process relied very strongly on the input of learning designers Kate Dickens and Sarah Fielding along with that of our teaching fellow Rikki Prince have been essential.

References


Davis, HC & White, S (2005) A research-led curriculum in multimedia: learning about convergence in 10th annual SIGCSE conference on Innovation and technology in computer science education Lisbon, Portugal, pp 29-33


From below average to above average: Six years of reflecting and responding to the National Student Survey

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University of Strathclyde, Scotland

ABSTRACT: In recent years, the National Student Survey (NSS) has focussed higher education institutions' efforts in improving various aspects of the student experience. The lowest level of student satisfaction recorded by the survey has been in the area of assessment and feedback. Here, a case study is presented, depicting one department's journey (Psychology at the University of Strathclyde) of reflection and responding to students' responses on assessment and feedback questions of the NSS. The journey depicted begins with results of our first NSS participation in 2007, revealing low student satisfaction with our assessment and feedback practices, through to a picture of improvement in 2008-2009, stagnation in 2010, and transformation in 2011 and 2012. NSS data from 2007 to 2012 is presented, alongside actions taken to improve our assessment and feedback practices. We believe some of these changes lay a foundation for more innovative changes suggested in current assessment and feedback literature.

Background
While not without its critics, it is undeniable that the publication of the results of the annual UK National Student Survey (NSS) has focused further and higher education institutions' efforts to improve the student experience. Introduced in 2005, the NSS comprises 22 questions covering six areas of students' experience at university: the teaching on the course, assessment and feedback, academic support, organisation and management, learning resources, personal development, and overall satisfaction. A glance at the figures for the sector as a whole shows a year-on-year increase in student satisfaction, although satisfaction continues to be lowest for questions in the Assessment and Feedback category. Liam Burns, President of the National Union of Students commenting on the 2012 results, stated, "Progress has not been as rapid as we would have liked, particularly in areas such as assessment and feedback, results have continued to improve year on year and they must continue to do so."

The aim of the present paper is to chart the journey of reflection and action taken by one department, Psychology at the University of Strathclyde, in response to students' feedback on assessment and feedback via the National Student Survey (as well as informal feedback and feedback from module evaluations, Student-Staff Liaison Committee, etc). As noted earlier, the NSS is not without its critics: arguments against the survey have related to the marketisation of higher education, and to the survey itself as a flawed instrument that provides little information regarding the quality of education. While we do share these concerns, we have taken the view that discussions arising from NSS student feedback has illuminated some practices in our own department that were not fit for purpose. Take as an example the practice of returning feedback on a piece of coursework that could be used to inform a subsequent coursework, but is returned too late for the student to use the feedback to improve their work (see Gibbs and Simpson, 2004 on the timeliness of feedback to support learning). This type of practice has been widespread, although it is fair to note that such practices are not always avoidable. Our annual analysis of the NSS results contributes one strand of a wider evaluation of our assessment and feedback practices. In our own context, student participation in the NSS is higher than local student surveys such as module evaluations, and therefore represents the views of a wider sample of students, rather than those of students at the extreme ends of the spectrum.

The structure of this paper will firstly review the NSS results for Psychology at the University of Strathclyde from 2007 to 2012, and will then present the actions taken by the department
to improve our assessment and feedback practices to better support students' learning process. Lastly, we consider current developments in the research literature on assessment and feedback and how this may further impact our assessment and feedback practices.

A look at our NSS results
Table 1 shows the five questions in the NSS related to assessment and feedback. The data represents, from 2007 (our first participation in the survey) to 2012, the percentage of Psychology students at the University of Strathclyde who 'definitely' or 'mostly' agreed with each of these five questions. For comparison, the data in parentheses is the UK sector wide data. Looking initially at the 2007 data, the results show student satisfaction lower than the sector average for the fairness of assessment arrangements (question six), the promptness of feedback (question seven), and the usefulness of feedback in clarifying things students did not understand (question nine). While we were aware of instances of individual students expressing unhappiness with their feedback (e.g. the consistency of feedback) and with our assessment and feedback practices (e.g. feedback on coursework not returned prior to a subsequent coursework deadline), the extent of the dissatisfaction was surprising and disappointing. The data from 2008 show modest increases in student satisfaction for the fairness of assessment arrangements, detailed feedback, and the usefulness of feedback to help clarify things students did not understand, but generally continued to be below the sector average. Some of the changes we made to our practices following the 2007 results were implemented in our second and third year classes, the latter of which completed the 2009 survey. It is in the results of the 2009 survey that one sees increases in student satisfaction, relative to our previous results and the national average (with the exception of question five), but is a trend which does not continue into the 2010 results, where instead the picture is one mainly of stagnation. The implementation of enhanced assessment and feedback practices between 2008 and 2011, we believe, is responsible for the increase in student satisfaction levels, in the 2011 and 2012 results, from below the national average to above the national average.

Table 1. Percentage of respondents (final year Psychology students at the University of Strathclyde) who ‘definitely’ or ‘mostly’ agreed with the Assessment and Feedback questions (Questions Five to Nine) in the National Student Survey 2007-2012.\(^{21}\) The figures in parenthesis represent the UK sector wide data (Higher Education Funding Council for England, 2012).

<table>
<thead>
<tr>
<th>Question</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>5. The criteria used in marking have been clear in advance.</td>
<td>71 (69)</td>
<td>65 (70)</td>
<td>67 (71)</td>
<td>71 (72)</td>
<td>82 (73)</td>
<td>86 (75)</td>
</tr>
<tr>
<td>6. Assessment arrangements in marking have been fair.</td>
<td>55 (72)</td>
<td>60 (73)</td>
<td>81 (73)</td>
<td>71 (74)</td>
<td>82 (74)</td>
<td>79 (76)</td>
</tr>
<tr>
<td>7. Feedback on my work has been prompt.</td>
<td>50 (54)</td>
<td>48 (57)</td>
<td>66 (58)</td>
<td>66 (61)</td>
<td>65 (63)</td>
<td>75 (66)</td>
</tr>
<tr>
<td>8. I have received detailed comments on my work.</td>
<td>61 (60)</td>
<td>70 (62)</td>
<td>78 (63)</td>
<td>79 (65)</td>
<td>81 (67)</td>
<td>86 (70)</td>
</tr>
<tr>
<td>9. Feedback on my work has helped me clarify things I did not understand.</td>
<td>34 (54)</td>
<td>48 (57)</td>
<td>63 (58)</td>
<td>63 (60)</td>
<td>71 (61)</td>
<td>76 (64)</td>
</tr>
</tbody>
</table>

Our journey to improve assessment and feedback practices
Student feedback on our assessment and feedback practices greatly informed our strategy to improve our practices. This feedback came from multiple sources: the NSS, the Student-Staff Liaison Committee, module evaluation feedback, and informal feedback. In addition, in

\(^{21}\) Prior to 2010, students in their third year of study were registered on a 3 year faculty BA degree (before being transferred to a named honours programme in 4th year) and were included in the NSS. Since at least 2010, only students in 4th year have been included in the NSS. When comparing between years these cohort differences should be noted.
2010, we also surveyed our second year students to gain their views on our assessment and feedback practices, the findings of which also contributed to the review of our practices. We also engaged with our institution's recommendations, '12 Principles of Good Assessment and Feedback' (University of Strathclyde, 2008), informed by research conducted by the Re-engineering Assessment Practices (REAP) project, and we consulted the wider research literature on assessment and feedback.

**Getting the basics right**

In 2008, we completed the transition from paper-based coursework and hand-written feedback to a fully electronic system, via our virtual learning environment (VLE), for all coursework submission across our undergraduate degree. As a result, feedback is always legible and students do not need to be on campus for the submission process, or for collecting feedback. We also ensure that the timetabling of summative assessments across Psychology classes, within a given level of the undergraduate degree, are organised so that students always receive feedback prior to submitting a further piece of coursework, allowing the opportunity for students to reflect on and use the feedback.

As with other departments with large student numbers, we employ Graduate Teaching Assistants (GTA) to assist with coursework assessment and feedback duties at the early levels of the undergraduate degree. Feedback from students in first and second year highlighted issues such as feedback being inconsistent with staff instructions and feedback that was uninformative as to how students could improve their work in future. As part of our strategy to address these types of issues, we enhanced our departmental-based GTA training programme and added mentoring support, provided by staff.

**Clarifying good performance**

**Criteria for assessing students’ work**

To clarify to students, and staff assessing students' work, we revised our assessment criteria to include qualitative descriptors of the characteristics expected of a piece of work for a given grade. This was part of our strategy to clarify what good performance is (Nicol and MacFarlane-Dick, 2006). Assessment criteria were written for each of the four levels of our undergraduate degree (the characteristics expected in an essay for a mark of 65 for a third year student is different from that expected from a first year student, with higher expectations as students progress through the degree), with additional criteria written for unique assessments (e.g. presentations, personal development portfolios). Documents containing criteria are disseminated to all students, staff and Graduate Teaching Assistants for each assessment task. We have incorporated activities into the degree that involve students working with the assessment criteria to grade and give feedback on sample coursework in order to familiarise them with the criteria and develop their capacity to judge academic work.

**Provision of 'model' coursework**

Further to clarifying our assessment criteria, we also followed the suggestion of Nicol and MacFarlane-Dick (2006) to make available 'exemplars' of coursework in order to demonstrate the fulfillment of assessment criteria. A survey of our second year students' views of our assessment and feedback practices showed that 81% of students reported that they would find the provision of exemplars useful for their learning. Since 2010, we have provided exemplar essays and reports (albeit on different topics from those the students are working on) at the start of the academic year, and following permission from high performing students, we have made available exemplar coursework following the return of marked coursework and feedback.

**Feeding back and feeding forward on exams**

Similar to many institutions, our students have not traditionally received qualitative feedback on exam work due to the significant additional resources involved. In 2010, however, we implemented the provision of generic feedback on exams for all undergraduate classes. This feedback typically points out the characteristics of strong and weaker exam answers, and is fed forward to the subsequent cohort in advance of the exams.
Introducing a dialogic approach

Enabling students to provide and receive feedback from their peers
Recent research conducted by Nicol (2011) and Boud and Molloy (2012) have urged the use of self-assessment and peer-assessment or review activities to enhance students’ capacity to make judgments about their own and others’ work. Boud and Molloy (2012) have also argued that feedback practices should be more aligned to workplace practices where feedback on performance comes from multiple sources. We recently incorporated a peer review activity into a third year class, where part of the coursework is a practical report based on an empirical group project. Students were asked to submit the Method section of this report for peer review six weeks prior to the submission deadline for the full report. Students were randomly allocated to give (and receive) anonymous feedback to three of their peers. The benefits of peer review for learning are multiple and are documented by Nicol (2011); in addition to the benefits outlined by Nicol, this particular implementation provides students an opportunity to close any gap between current and desired performance (one of the University of Strathclyde’s 12 principles of good assessment and feedback practice) for this section of their final report.

Enabling dialogue between student and marker
The works cited above by Boud and Molloy (2012) and Nicol (2011) have also emphasised the need for a shift from a feedback approach based on a transmission model, where a feedback message is communicated from marker to student, to an approach which encourages dialogue between students and teachers. Nicol (2011) argues for feedback to be based on co-construction between students, peers, and teachers. A small step towards incorporating such an approach is our introduction of a new cover page for coursework in 2010, which contains a box stating ‘Dear Marker, I would like feedback on the following’. This space allows students to request specific feedback from the marker (e.g. ‘how well have I critiqued the literature?’), and for the marker to further tailor the feedback to the development needs identified by the student. The cover page also includes a space for students to record the action they have taken since receiving feedback on a previous piece of coursework, which markers can again provide feedback on the extent to which the action is effective. These measures invite the student to reflect on their learning needs and identify these to the marker, allowing the marker to respond to the needs of the student, as identified by the student, as well as those the marker identifies.

Improving communication

Pointing out different forms of feedback
Taking Nicol & Macfarlane-Dick's (2006) broad definition of good feedback as "anything that might strengthen the student's capacity to self-regulate their own performance" (p. 205), we considered it important to point out to students the different sources of feedback they receive, beyond feedback on summative assessments. A statement tailored to each class on such feedback has been inserted into all undergraduate class statements (In one class this reads: ‘Students will receive verbal feedback from their peers and verbal and brief written feedback from a member of staff on presentations, as well as electronic feedback on practical reports. Feedback, however, comes in many forms and at various other points: when a discussion post is responded to, this is feedback; a response to a question before, after, or during a lecture, or by email, is feedback.’).

Informing students of when they can expect feedback
We acknowledged earlier the importance of returning feedback with sufficient time for students to use it to effectively support their learning, but we also considered it important to inform students of when they can expect their feedback. From the students’ perspective, receiving feedback, particularly on summative work, can be an emotional experience, so knowing the date by which feedback will be returned allows students to prepare. Like most higher education institutions, all of our undergraduate classes have a class ’site’ on our virtual learning environment (VLE). In the VLE class sites, where students electronically submit their coursework, we included an area called ‘I’ve uploaded my ‘_____’ coursework,
what happens next?’ (See the screenshot below), to communicate the date when students can expect their feedback to be returned, as well as highlighting other relevant resources.

Figure 1. A screenshot of our VLE detailing the processes following coursework submission.

**Using the language of the survey when communicating with students**
As psychologists we have some knowledge of the processes involved in memory encoding and retrieval and the importance of overlap in content between these for subsequent recognition (e.g. Thomson & Tulving, 1973). We changed the language we used to communicate established practices to the language of the survey. For example, our document containing our procedures for ensuring fairness and accuracy in assessment and feedback was renamed ‘Ensuring fairness and accuracy in assessment and feedback’, to reflect the wording of Question six of the survey. We also renamed the documents containing our marking criteria (previously called e.g. ‘Marking criteria for third year’) to ‘Criteria used in marking 3rd year work’, mirroring more closely the language of Question five of the NSS.

**Feeding back to students on feedback**
Following attendance at a Higher Education Academy workshop on the National Student Survey where we learned about the usefulness of a ‘You said, we did’ document, to respond to students on feedback they have provided. We use this type of newsletter to communicate our responses to students’ feedback, including on assessment and feedback. The aim of this newsletter is also to demonstrate to students that we are genuinely interested in their views of the course, and thereby also encourage them to give feedback in future, and following Carless (2009) greater communication is one way in which to foster the development of trust between students and staff around assessment issues.

**Current discussions in the research literature on assessment and feedback**
We have presented here some of the actions taken following consideration of students’ feedback on our assessment and feedback practices. Some of the actions described follow what Boud and Molloy (2012) call the ‘Engineering’ or ‘Feedback Mark 1’ approach, where a large proportion of feedback is transmitted from teacher to student. Other changes in our practice fit more closely the dialogic approach (Boud and Molloy, 2012; Nicol, 2011), which emphasises co-construction of feedback between students, peers, and teachers. Other changes around improved communication aimed at building trust through transparency (Carless, 2009), and at raising awareness amongst students of existing resources and
practices aimed at supporting their learning (e.g. renaming assessment criteria documents and making them available in spaces students are continually using). While these implementations were tailored to the perceived gaps in our assessment and feedback practices, they are in accord with growing consensus of what constitutes good practice, and may have contributed to the dramatic improvement in our NSS scores on assessment and feedback.

References


It's time to TESTA change: effective feedback/feed forward?

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Faculty of Health and Social Care, Robert Gordon University, Aberdeen, Scotland

Abstract
Assessment feedback has been an enhancement priority within the Faculty of Health and Social Care (FOHSC) at Robert Gordon University, Aberdeen, Scotland since 2008. Despite these actions, results from the NSS and the University's internal student experience questionnaire indicate that students still consider feedback to be problematic. The aim of this project was to investigate student views on the different methods of summative feedback provision and the quality of that feedback, the quality of feedback, how students used it and any areas for enhancement. A mixed methodology based on the 'Transforming student experience through assessment' (TESTA) programme was utilised. Score for questions relating to feedback were below TESTA means but within the acceptable ranges. Qualitative data provided a degree of clarification for these low scores. The results are reported and discussed.

1 Introduction

Assessment is recognised as being the single biggest driver of student behaviour (Ramsden 1992) and, as such, appropriate assessment design and delivery can have a powerful influence on the quality of the learning experience. Equally, poor assessment practice can elicit not only a surface approach to learning, but also prevent the development of skills which are key to success in life beyond the university (Joughin 2009, Boud and Falchikov 2005). Increasingly, higher education provision must be seen to be relevant, developing students and producing graduates who are competent in the professional tasks that will be expected of them in the workplace (Bridgestock 2009).

Consideration of contemporary pedagogical literature indicates that academics are clearly aware of the critical nature of quality feedback and that, furthermore, a great deal of time and effort is spent on attempts to enhance assessment and feedback practice. This notwithstanding, the results of the National Student Survey (NSS) would suggest that - across the sector - we are struggling to cope with perceived student needs (Buckley 2012, Beaumont et al 2011). In line with these sector-wide trends, RGU has seen less positive views for assessment feedback from the NSS, although recent results indicate positive movement, with overall results being higher than the Scottish average (QAA 2012).

The NSS is not without its critics: the very generic nature of the questions had led to concerns about validity (Buckley 2012). Interestingly, the Cambridge Classics Professor Mary Beard in a recent interview for the BBC questioned the value of attempting to measure student 'satisfaction,' challenging the assumption that the quality of a course can be represented by whether or not students in the final year consider themselves 'satisfied.' However, these scores are undoubtedly used by students in selecting courses and so there is a business-related drive for engaging with the process. It is also true that, while the NSS was not designed with enhancement in mind, it can act as a starting point for triggering debate and can lead to genuine engagement (from both staff and students) with enhancement issues. Critically, when NSS scores are low, it is important to engage with students in further exploring the issues raised within specific course contexts. The value of the NSS as a lever for change has been recognised in the Faculty of Health and Social Care (FOHSC) at the Robert Gordon University (RGU) and enhancement of feedback processes has been a priority since 2009.
Across the institution, the 'less positive' views relating to assessment expressed within the NSS largely relate to the following questions:
NSS Question 7: Feedback on my work has been prompt
NSS Question 8: I have received detailed comments on my work
NSS Question 9: Feedback on my work has helped me clarify things I did not understand

Certainly, the response to question 9 suggests that students may be struggling to use their feedback for feed forward. Before attempting to engage in any enhancement activity, it is important to try and 'unpack' these responses: why exactly do students feel that their feedback fails to clarify their understanding? It could relate from a failure of the staff member to accurately transmit the intended feedback message, or it could represent an interpretation problem on behalf of the student. It could also stem from a lack of appropriate support preventing a student from engaging with activities that will help them in closing their performance gap.

The project reported here sought to investigate some of these issues using a nationally validated approach known as 'Transforming the Experience of Students Through Assessment' (TESTA) and was carried out as part of a Higher Education Academy 'Change Academy' project.

1.1 TESTA

The notion that student learning is fundamentally linked to their experience of assessment across the whole programme is the driver behind the TESTA initiative. Gibbs and Simpson (2004) describe 11 conditions under which assessment can be seen to support learning. Those relating to feedback are detailed below (fig 1).

These observations were used to develop the Assessment Experience Questionnaire (AEQ) which is a validated tool for measuring the student response to assessment at the programme level. TESTA is a joint National Teaching Fellowship project (http://www.testa.ac.uk/) which grew out of the recognition that planning of assessment activities tends to occur at the module level, and often this is not translated to the whole course/programme level. It articulated the need for establishing clear goals and standards relating to assessment so that staff and students can share a common understanding of practice.

Fig 1: Conditions supporting learning

<table>
<thead>
<tr>
<th>Factors relating to quantity and timing of feedback</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sufficient feedback is provided, both often enough and in enough detail</td>
</tr>
<tr>
<td>The feedback is provided quickly enough to be useful to students</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Factors relating to quality of feedback</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feedback focuses on learning, rather than on marks or on students themselves</td>
</tr>
<tr>
<td>Feedback is linked to the purpose of the assignment and criteria</td>
</tr>
<tr>
<td>Feedback is understandable to students, given their sophistication</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Factors relating to student response to feedback</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feedback is received by students and attended to</td>
</tr>
<tr>
<td>Feedback is acted upon by students to improve their work or their learning</td>
</tr>
</tbody>
</table>

TESTA involves triangulation between three sources of data. The AEQ which provides a quantitative measure of student views on assessment processes (including feedback) and a course/programme level assessment audit (which details number of assessments and quantity of feedback amongst other aspects of assessment). 'Texture' is added to this data through student focus groups or interviews.
The objectives of this project were to:
Investigate student views on the different methods of summative feedback
Establish how student use summative feedback and to assess the quality of feedback and its potential for feed forward
Identify any areas for enhancement in the provision of feedback and use of feedback including alternative methods that could be applied efficiently and effectively.

2 Methodology

The methodology employed was a modified version of the TESTA approach described elsewhere (www.testa.ac.uk). A mixed methods study was undertaken to ascertain information about current assessment practices with a key focus on feedback. It was broken down into 5 phases: 1) course audits; 2) Assessment Experience Questionnaire; 3) student interviews; 4) categorisation of student feedback; 5) staff interviews. All undergraduate programmes within the Faculty were audited. The AEQ was emailed to all students in year two and three of each programme and then distributed in class and those who had not responded asked if they would be willing to participate. This was completely anonymous and voluntary. At the end of the questionnaire students were asked if they would be willing to take part in an interview about their assessment feedback. Those who provided contact details were then emailed by research assistants who had no involvement in the assessment process. If no response was gained a follow up email on behalf of the project coordinator was sent and if no response was gained at this point the student was excluded from interview.

Interviews were undertaken by the research assistants in a quiet, private environment and at a mutually agreeable time. Informed consent was gained at this time. Interviews were then transcribed verbatim. During the interview students were asked to provide copies of any feedback they had received for semester one assessments. Once student interviews were completed, staff who had provided the feedback to these students were then contacted and asked if they would be willing to take part in an interview. The purpose of this part of the project was to try to establish if the meaning intended by staff for the feedback had been the same meaning interpreted by the student.

2.1 Data Analysis

AEQ data was compiled in an Excel spreadsheet and then scores allocated to each Likert category (Strongly agree 5, agree 4, undecided 3, disagree 2, strongly disagree 1). Some questions are negatively phrased and a negative response is therefore desirable. For these questions the scoring was reversed (strongly disagree 5, strongly agree 1). The scores were then added together for each category and the mean calculated (http://www.testa.ac.uk/). Data from TESTA programmes is collected nationally, and these results are used to compile ‘TESTA means' which are useful for comparison. Interviews with students were transcribed verbatim, and then categorised, although the very small number of participants from the School of Pharmacy and Life Sciences limited the value of this any school specific interpretation.

Only data relevant to the quality, quantity and use of feedback are reported here in line with the aims of the paper.

3 Results

Of a possible 1620 students across the 16 courses, 570 completed the AEQ, a response rate of 35%. The AEQ responses are detailed in Table 1 below and show that all means for all schools were within the TESTA range although below the mean.
Interviews were undertaken with 32 students. Of these 19 were from the School of Health Sciences (SHS), one from Nursing and Midwifery (N&M), nine from Applied Social Studies (ASS) and three from Pharmacy and Life Sciences (PALS). Classification of feedback content could be only be undertaken for feedback from SHS and ASS as other students failed to bring copies of their feedback to interview or reported receiving no feedback other than grade. Results for the classification of feedback are given in Table 2.

Table 1: AEQ responses.

<table>
<thead>
<tr>
<th></th>
<th>Quantity &amp; quality of feedback</th>
<th>Use of feedback</th>
<th>Clear goals and standards</th>
</tr>
</thead>
<tbody>
<tr>
<td>TESTA Mean (n=246)</td>
<td>3.38 (2.77-3.94)</td>
<td>3.79 (3.24-4.38)</td>
<td>3.46 (2.69-3.79)</td>
</tr>
<tr>
<td>TESTA Range</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Faculty</td>
<td>3.06</td>
<td>3.55</td>
<td>3.08</td>
</tr>
<tr>
<td>ASS</td>
<td>3.01</td>
<td>3.35</td>
<td>2.89</td>
</tr>
<tr>
<td>N &amp; M</td>
<td>3.28</td>
<td>3.76</td>
<td>3.07</td>
</tr>
<tr>
<td>PALS</td>
<td>2.87</td>
<td>3.58</td>
<td>3.33</td>
</tr>
</tbody>
</table>

The student interviews provided some useful data about student views of feedback methods and current problems with feedback. However, little information about their interpretation of specific examples of feedback was provided which prevented any consideration of whether students interpreted the meaning that staff intended from the feedback. From the course audits and interviews a range of feedback methods were being used across the Faculty for a variety of assessment methods (Table 3).

Table 2: Feedback classifications

<table>
<thead>
<tr>
<th>Classification</th>
<th>Errors 1</th>
<th>Errors 2</th>
<th>Errors 3</th>
<th>Omissions 1</th>
<th>Omissions 2</th>
<th>Omissions 3</th>
<th>Irrelevancies 1</th>
<th>Irrelevancies 2</th>
<th>Clarifies 1</th>
<th>Clarifies 2</th>
<th>Developing communication 1</th>
<th>Developing communication 2</th>
<th>Developing communication 3</th>
<th>English Use 1</th>
<th>English Use 2</th>
<th>English Use 3</th>
<th>Poses questions 1</th>
<th>Poses questions 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>%</td>
<td>41</td>
<td>58</td>
<td>20</td>
<td>41</td>
<td>75</td>
<td>13</td>
<td>73</td>
<td>28</td>
<td>75</td>
<td>67</td>
<td>49</td>
<td>8</td>
<td>40</td>
<td>40</td>
<td>20</td>
<td>67</td>
<td>34</td>
<td></td>
</tr>
</tbody>
</table>

Table 3: Feedback methods in use across the Faculty

<table>
<thead>
<tr>
<th></th>
<th>Examination</th>
<th>Coursework</th>
<th>Oral/viva/presentation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grade only</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grade with mean and standard deviation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Written comments by hand typed</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Script annotation by hand track change</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Audio feedback</td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Face to face in a group 1:1</td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>

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Extensive comments were provided on audio feedback as the main user of this method is the School of Health Sciences and 19 students were interviewed. Examples of comments provided are shown in Box 1 and relate to the quality of the feedback, the dual level feedback provided by this method and also some negative points that students raised. Audio feedback ranged from 1min 30 seconds to 29 minutes in duration.

Box 1: comments on audio feedback

Quote 1 "The audio feedback, that was really good because you got it as it were directly from the horses mouth, ... you got what she meant with the tone that she used as well as what she was actually saying em and also probably put in more information than she would've done had she had to write it down..."

Quote 2 "I thought it was 9 minutes of quality stuff that you could use because it was individualised and you could it did pick out certain components of the essay that wasn't really up to scratch and uh I know XXXX gave examples in the audio of things that I could've included but I didn't."

Quote 3 "you've got tone you've got a lot more content, people will tend to talk more than they write I think"

Quote 4 "when you're given so much feedback it can be a bit daunting on what to focus on first and that so..."

Quote 5 "...well for a start, if you wanted to get to a specific part of it you had to listen to the whole recording you know em and it just felt like it was somebody nagging at me (laugh)

Although the majority of comments were very positive about this method it was identified that staff mood can sometimes be transmitted via this method:

Quote A "...I just, sometimes you can, I think you can hear it in the tone of voice that maybe if they're been marking quite a few that day or something, that they're kind of getting a bit bored of, like, giving the feedback as such. I mean that, that sounds awful but, I think that if, say you were given a longer period of time to mark and you only did two per day or something, I think they'd sound a bit more upbeat as well."

Comments about written feedback related to both handwritten and typed and are shown in Box 2 with comments about face to face feedback in Box 3.

Box 2: comments about written feedback

Quote 1 "...if there's a comment written on an essay, there's only a few words isn't it? It's in a margin or it's just something's been highlighted or asterisked or something..."

Quote 2 "...it was properly typed up notes. Em, which I thought was really good this time,...this time, when I got the two As, there was comments for each thing so, he spoke about what I did well and what I could have maybe done better as well, ...(talking about the marking grid) just started typing directly onto that so we've clear comments that we can read, because that was the other thing, a lot of the time we couldn't read our comments because the hand writing was so quick or whatever."

Quote 3"....some of them have really poor hand writing and so it's really hard to actually decipher what they actually said and then it's not helpful either. Even though they've got a page worth of comments, but if you can't read it, it's (laughs), it's basically useless...."
Box 3: Face to face feedback
Quote 1 “...we had one lecturer who does feedback clinics, which was really helpful”.

Quote 2 “...we’ve had the sit down like one to one or one to a few of us in a group and they’ve said this was ok you know perhaps you could’ve tried putting in x,y,z, yeah no actually I think you went way of course with that, hey you kinda tried to catch it round there instead... That’s the sort of feedback that us students want, we don’t want somebody just to pat us on the back and say yeah yeah yeah you did really well”.

Further comments were gained on examination feedback. Some referred to the perceived lack of feedback while others highlighted constructive methods that were being used (Box 4).

Box 4: Examination Feedback
Quote 1 ”...for the exams you get to see the transcript and got to see the comments that were in it....you’re rushed a bit to really have to really get your head back into what you had been writing..."

Quote 2 ” all we got was our grade, the mean mark for the class and the standard deviation. That was all.”

Quote 3 “Yeah I think for exams it’d be great if we could get some, like, general feedback for the year ... they correct one exam and then did general feedback as to what people did right and what people did wrong in general, that would probably be quite helpful because then you could figure out like, what you know, what you did well from that.”

Quote 4 "well she went through every question ... in the exam and had the main points that should have been included in your answer up on a PowerPoint ... so as you read over what you had written and compared it to what was written on the screen that was really helpful and also ...you could see where you were awarded marks... because it certainly showed me the areas where I was waffling (laugh)..."

Staff interviews which related to the modules reported by students as only providing a mark, mean and standard deviation clearly indicated that additional feedback (the option of a 1:1 meeting) was offered but not widely utilised. Comments from students about staff approachability was varied with some students reporting no concerns in approaching staff for more feedback while others reported getting the feeling that staff were too busy and did not want to provide this feedback.

Problems relating to feedback were also identified in the interviews. This often related to a lack of specificity in the feedback provided but comments about the timeliness of feedback for use as feed forward, and the consistency across different assessments, were also made. Box 5 shows a range of comments relating to these issues.

Box 5: Specificity of feedback
Quote 1 ”...some of them point out the things you’ve done really well and that’s like, ’at least I can do that!’ But em, some of them are just like, ‘this is everything you’ve done wrong’ and you end up still getting a B and it’s like, ‘well, I must have done something right’, but you have no idea what you’ve done right...."

Quote 2 “I remember I did an assignment and I got em an E for my referencing and still to this day I’m not sure why I got an E for my referencing cause in a previous assignment I submitted I got an A for my referencing and I’d followed the same... "

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Quote 3 'I think there was like, two Cs, which made me get a B overall and so, yeah, it would have been nice to have got focus on those Cs, which were quite, like, the main components of the essay. If there'd been more sort of detail on how I could have improved those. It was a bit frustrating to get such good marks in all the rest and then just have those two drag me down to a lower grade.'

Quote 4" it kinda just said this is what you need to do not how you need to do it"

Quote 5 "he just said they weren't SMART, but I know what SMART is and to me, I kind of hit every part of SMART so, specific, measurable, but he just said SMART. Why didn't he say, 'oh they weren't achievable' or 'they weren't timed'?"

Quote 6 " he went through all the areas where I could have done better, where I could have added in stuff and that. Which, it's grand saying you could have added in stuff but you're working with a word count as well. It's like, I would like to know how I would have been able to fit all this in like, so. It's good in one way but also it's like, eh, how was I supposed to do that, d'you know?"

The final area of comments relate to the potential impact that feedback can have. For many students it can provide feed forward although not all students use the feedback in this way Box 6 quote 7) but for some a very negative effect was reported (quotes 8 and 9).

Box 6: Feed forward
Quote 1"And as well, that's supposed to be, like these lab reports are supposed to be like a practice for our thesis next year, but we have no idea how to improve on this if we got, if we haven't got anything else on it."

Quote 2"...with some of the essays, where the lecturer would actually go into the essay and then where they didn't think that I expand on something, they would just, like put there, like a question, like a "what about this?" or "so what does that mean, actually?". You know? And so then you actually know, alright, next time if I mention something I need to elaborate on that...."

Quote 3" just that the acute care one was great. It was just…. it was constructive, like your strengths and weaknesses were, em, kind of went over and it was kind of related to clinical practice as well in terms of, 'once you finish university and if you're working within this acute care setting, you might want to do this'...it wasn't just specific to the coursework, it was your actual career progression."

Quote 4 "last summer I got my feedback for another assessment which I, you know, they were all Ds and I thought 'no I'm going to sort this out'. I waited till the summer, I went through everything, used the audio feedback ...and worked on it ... and I think that definitely improved. Well, both of the assessments, I mean this assessment especially, I definitely improved, it was definitely because of the audio feedback."

Quote 6 "I've set up a refworks account so because of the feedback about not having enough references and not referencing correctly."

Quote 7 "yeah if I if I get a B a A or a B I'm happy days, I listen to it but its done, if I fail it or it goes to get a much lower mark I could listen to it a lot more"

Quote 8 "I feel it just criticises me all the way through that's all I feel this feedback this particular feedback does... and fair enough be critical that's fine I can take that on the chin, if I'm also told what way I could've improved... it angers me every time I read it to be honest with you"
Quote 9"This (indicating the name of the module) isn't going to help me whatsoever apart from make me feel very negative and it has actually made me question should I just leave after third year ...."

4 Discussion

The AEQ results suggest that students are not happy with the quality and quantity of feedback but that they do use it. This suggests feedback is at least addressing points 7-12 identified by Gibbs and Simpson (2004). The use of feedback is supported by interview data (Box 6). A wide range of feedback methods are being used across the Faculty for a range of assessments and students have clear views on what is helpful and what is not which can be used to enhance the provision.

The quantity of feedback appears to be a fine balance between insufficient and too much (Box 1 quotes 2 and 5). The amount provided for exams ranges from only a grade to feedback session encouraging self- reflection on performance. Discussion with the teams reported to only be providing grades suggested that this was not the case. All students were offered the opportunity to receive 1:1 feedback from staff but very few took up this offer. This may be because students have passed and are therefore not interested as indicated by the comment in Box 6 quote 7, because they have to arrange a meeting and do not prioritise this or possibly because they do not feel comfortable having to approach staff. Some students reported feeling unable to approach staff, often because they felt that staff were already too busy. It may be useful to block a feedback time and allocate each student a 10 minute slot which could help avoid this perception. This would also remove the need for students to make the effort to arrange the appointment and would show that staff are keen to provide the additional feedback. For written and audio feedback care needs to be taken that sufficient feedback is provided to be of use but that this does not overload the students. Twenty nine minutes is extensive feedback and could be difficult to digest however very little feedback could be provided in one and a half minutes.

The quality of feedback appears to be variable from the interview comments which may reflect the low scores in the AEQ. Positive and negative comments for the different methods of feedback are shown in Boxes 1, 2, 3 and 4. Problems with deciphering handwriting are reported and yet the advantage of typing feedback, in addition to legibility which is reported above (Box 2 quotes 2 and 3), is that students can take a copy away while a copy remains for external examiners to review.

Audio feedback has been very positively perceived by the majority of students (Box 1 quotes 1, 2, 3). Students clearly identified the advantage of the dual nature of feedback provided by this method, the content but also the intonation which can influence student interpretation of what is written (Merry and Osmond 2008, Ribchester et al 2008). An additional advantage is that the students can listen to the feedback as often as necessary, something which is not possible with face to face feedback. However, the lecturer’s voice can also work negatively when they have been marking for some time (quote A). This indicates that staff should take care when providing audio feedback and consider their enthusiasm level when recording feedback. If the aim of feedback is to engage students in the learning process an enthusiastic intonation is more likely to be effective than a bored voice.

Students given one to one or one to a group feedback were overall more positive about their experiences and this is probably because they had the opportunity to ask questions to clarify issues they did not understand. This is not reflected in the AEQ scores however as they also experienced other feedback methods such as only a few written comments on an exam script which they were able to see only briefly.
The variability of quality may underpin the low quality score which may also be impacted by the problems of lack of specificity which were reported by students (Box 5). The lack of specificity reported by students is reflected in the classifications (Table 2) which show that although students were being told what was correct (level 2 in the classifications) they were not helped to understand the why, level 3 (Gibbs and Simpson 2004). From the data collected in this project it has become evident that some work is required to help at least some staff develop the specificity of their feedback. This needs to be handled sensitively so that staff are receptive to this development and do not just perceive feedback enhancement as yet another way to increase their workload as has been experienced in the past in one school.

Student interviews failed to provide specific information about what the students had explicitly understood their feedback to mean and as a consequence it was not possible to establish if there was a mismatch between the intended message and the interpreted message. The project also did not establish if the feedback provided directly mapped to the task set, the module learning outcomes or generic skills. However the data provided in Box 5 suggests that there may be a mismatch, at least for some students. Some students appear to fail to recognise the constructive alignment between feedback and task. This is not all students however as indicated in Box 6 quotes 3, 4 and 5. It is unclear if this mismatch is a result of the feedback not ensuring constructive alignment or if there is student misunderstanding. It is important to ensure that staff demonstrate this alignment in their feedback and that this is clear for students.

What was of concern, however, were the comments about the impact feedback can have on students (Box 6 quotes 8 and 9). Although this was only two students it should not be disregarded, particularly considering the increasing incidence of mental health problems in the student population (Royal College of Psychiatrists 2011). Students may be overly sensitive to feedback or may misinterpret feedback, particularly if written but responses such as those reported above are clearly undesirable. This is another aspect supporting face to face or audio feedback due to the duality of feedback provided and for face to face the opportunity for discussion. Staff would have to be committed to one to one feedback however or students will pick up their disinterest which can impact on the communication. This also emphasises the need to take care when providing feedback that it is specific and constructive. Positives must be provided in line with good practice on feedback provision (Weaver 2006).

What has become evident from this project is that practices vary widely across not only the different Schools within the Faculty but also different courses within the Schools. As a result it has been necessary for Schools to review the implications of findings as they relate to their practices. As a result School specific and even subject specific changes have been undertaken. In future it may be helpful for individual schools to undertake this process, possibly when moving into revalidations to facilitate the planning process.

5 Conclusion

The findings of this project have helped provide direction to enhancements in feedback within the FOHSC. Across the schools still allowing hand written feedback consideration is being given to whether this should be permitted as a norm. The advantages of typed feedback relating to legibility and therefore more useful feedback are helping encourage staff to move towards this method. Audio feedback has been well received but guidelines have been reviewed to encourage staff to consider how long they spend recording before taking a break and also to encourage staff to synthesise feedback so that clips can be kept as short as possible without losing content. Different Faculties and Schools within the university are investigating and piloting audio feedback as the result of work undertaken in the School of Health Sciences. Staff development work on specificity of feedback has been undertaken
and is being monitored so that further work can be undertaken with individuals as necessary. Staff have also been encouraged to consider what is the most useful method of feedback for students. In one school 1:1 appointments are now being encouraged. Staff are also reviewing feedback methods for exams so that at least generic feedback is provided. One of the most important outcomes from the work however is the production of a bench line which can be used to monitor progress over time. Project staff have shared this method across the university to encourage this type of monitoring of practice which can help monitor quality of assessment and feedback for students but can also help monitor staff workloads.

References


Buckley, A., 2012. Making it count: Reflecting on the National Student Survey in the process of enhancement. Available at: http://www.heacademy.ac.uk/resources/detail/nss/Making_it_count (last accessed 23/02/13)


TESTA: Transforming the Experience of Students Through Assessment. Available at: http://www.testa.ac.uk (lat accessed 2nd May 2013)

Technology-enhanced dialogic feedback in curriculum design

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ABSTRACT: Our curriculum relied on monologic written feedback on end-of-unit summative essays. A review of external examiner reports, course evaluations, current and alumni student surveys and staff interviews raised several issues including lack of opportunity for feed-forward, and student and tutor isolation. Moving to technology-enhanced learning we redesigned the curriculum with feedback dialogue at its core. We moved to larger modules allowing assignment flexibility; sequenced all assignments; introduced assignment coversheets which included a framework for self-review; and introduced individual student journals. On receipt of tutor feedback students now load their marked assignment (including feedback on their self-review) into their journal and reflect on the feedback using structured questions. This gives the student and tutors easy access to all previous feedback dialogue. Next steps include introducing a patchwork assessment for students to self-review their progress towards meeting exit outcomes at Certificate and Diploma using evidence from their feedback dialogues.

Introduction
The Masters in Medical Education has been delivered by the Centre for Medical Education in the University of Dundee for around 40 years. There are currently over 2,000 students on the Certificate, Diploma or full Masters programme, the vast majority being distance learners. All students are qualified health professionals, with approximately 90% doctors and a third non-UK based. The paper-based Certificate consisted of 20 three-credit units, with each unit being viewed as a separate entity. Seven units were compulsory and completed first, but students could complete them in any order. The curriculum relied on monologic written feedback on end-of-unit summative essays, giving little opportunity for students to demonstrate understanding and application of learning from the feedback. This paper outlines our attempts at improving assessment and feedback practices through the use of technology.

Redesigning the course
2.1 Evaluation
An extensive course evaluation was performed including: end of course evaluations (2006-11); minutes of Board of Studies meetings (which includes student representation); external examiner reports (2006-11); minutes of examination board meetings; course assignment feedback; the previous programme review; and external accreditation reports. From a synthesis of these and a review of current good practice in online distance learning a questionnaire was designed and all current and alumni students were invited to participate (2010). Individual students and staff were also interviewed for more in-depth feedback. The following key points were noted:
Overall, students and tutors welcomed a move to online-delivery.
Assessment design was a concern (e.g. over-assessment, over-reliance on essays, essay-length limited, lack of formative assessment).
There was inconsistency in the quality and quantity of feedback provided.
Tutors felt frustration at lack of feedback dialogue e.g. not knowing if students had read and understood feedback, how tutors could improve their feedback.
By the time students received feedback on an assignment they had moved onto the next unit.
There were no obvious opportunities for students to use feedback in future assignments.
Both students and tutors reported feelings of isolation.
It was time-consuming for tutors to access previous tutor feedback.

2.2 Developing a transformational feedback strategy
Feedback is an important aspect of learning and needs to be fully embedded in a programme to be transformational. Hattie and Timperley (2007) argue that an effective feedback strategy should increase student effort, motivation and engagement and also
promote student restructuring of knowledge and alternative strategies to understanding. Students need to develop skills in evaluative judgement of their own and others' work (Boud and Associates, 2010, Nicol and Macfarlane-Dick, 2006, Sadler, 2010). To create lifelong learners feedback should develop these skills, empowering students to become self-regulated learners (Nicol, 2010).

The interACT project team undertook a comprehensive literature review and synthesised the following key educational principles for dialogic feedback that would underpin the project:

Effective feedback that promotes self-regulation of learning should:

Afford opportunities for feedback to be used in future assignments
Be dialogic in nature
Encourage self-evaluation and monitoring of own work and seeking of feedback
Develop students' evaluative judgements

The next part of this paper looks at how we redesigned our curriculum with these principles at the foundation.

2.3 Blueprinting of assessment across the programme and development of assessment criteria and rubrics

The curriculum was redesigned by moving from 3-credit units to 15-credit modules allowing flexibility over size of assignments. Although the Certificate and Masters sections already had a specific focus ('developing the teacher' and 'developing the researcher' respectively), the diploma had previously been 'the bit between certificate and masters'. This was refocused as 'developing the leader in medical education'. Flexibility in programme make-up was valued by students so optional modules were also developed in areas such as professionalism, e-Learning and clinical teaching.

Content was mapped against the HEA (Higher Education Academy) and AoME (Association of Medical Educators) criteria. Understanding of what is needed for an assignment and transparency in marking are key to quality enhancement. Rubrics were created for each assignment, clearly stating objectives under the headings of content (understanding of theory and application to own context), style/formatting and references. The rubric matrix also included descriptions for different levels of grading for each of the headings.

2.4 Modular approach to sequencing of assessment

Assignments were sequenced using the ESCAPE tool (Russell and Bygate, 2010). This tool allowed quick visualisation of feedforward potential. Students take modules consecutively (i.e. a student is not working on more than one module at any one time). However the lack of formative and low stakes assignments was instantly obvious from analysing the paper-based course. The revised plan was constructed through curriculum development workshops. It was decided that the first two compulsory core modules would be assessed using four short assignments to gently scaffold and optimise students' academic writing and critical thinking through quick feedback. From then on modules used longer assessments to encourage deep critical evaluation and prepare students for writing a Masters dissertation. The assessment redesign with sequencing of assignments builds on the first educational principle outlined above. Figure 1 shows the change in assessment plan for four of the new modules in the Certificate programme.
2.5 Student-tutor expectations
It is an accepted truism that feedback should be timely, but what exactly does this mean? Nicol & Macflane-Dick (2006) give two definitions: 1) close to the act of learning production and 2) before it's too late for students to change their work. Both value the transformational role of feedback, something the paper-based course potentially missed. A student-tutor charter was created which included reference to student and tutor expectations from each other. By including students, tutors and administrators in creating the charter different views could be explored. Formative feedback was both close to the act of learning production and in time for students to address changes in their summative work. Where suitable, computer-assisted marking was employed to give instant feedback. In other modules peer-feedback was utilised. In the first module a tutor-assessed formative assignment was included to support students returning to academic writing, sometimes after several years.

2.6 The cover page
A cover page for each assignment was co-constructed by the academic staff and student representatives to a) encourage and develop self-evaluation; b) promote student-tutor dialogue; c) allow students to specify areas of feedback; and d) encourage students to recognise and articulate where they had used previous feedback to inform the current assignment. The feedback rubric criteria were built into the cover page to provide a framework for students' self-evaluation.

The self-evaluation is not graded but if not completed the assignment is returned as an 'incomplete'. This allows the student to resubmit without affecting their resubmission count, and is possible in this course due to the lack of deadlines for assignments. The cover page actively prompts students' self-evaluation and feedback seeking behaviour (principle 3).

2.7 The student journal
The tool used to support dialogue needed to be easy-to-use and efficient for students, tutors and administrators. Because Blackboard™ is the VLE (virtual learning environment) through which the course is delivered, we evaluated the different tools it offered. The Campus Pack™ wiki allowed a longitudinal repository for the whole programme which could be pre-...
populated with one page per core assignment, each page containing questions to promote dialogue (principle 2). The wiki could be made private for each student but accessible to all tutors, important in addressing our tutor concern about difficulty in accessing previous feedback.

On receipt of the tutor feedback (including responses on the cover page) the student loads the marked assignment (including feedback and self-evaluation) into the relevant page of the journal and reflects on the feedback, using structured questions:

*How well does the tutor feedback match with your self-evaluation?* This question encourages the student to reflect on their self-evaluation and also allows the tutor to comment further on their self-evaluation development hence explicitly promoting evaluative judgments (principle 4)

*What did you learn from the feedback process?* This question prompts students to process the feedback and enables tutors to evaluate the students' level of understanding of the feedback.

*What actions, if any, will you take in response to the feedback process?* This question allows timely reflection which the student can refer back to when completing their next assignment(s) and a marker for us to check if this was indeed completed in the next assignment.

*What if anything is unclear about the tutor feedback?* This question creates a safe place for students to respond to the quality and content of the tutor feedback. By providing this question the module leads are legitimising the student response and gaining quick feedback on assessment and feedback issues.
2.8 The process
The InterACT process was introduced 1st April 2012. Figure 2 shows this process in diagrammatic form.

![Visual Representation of the InterACT Process for Assessment and Feedback](image)

Figure 2: Visual representation of the InterACT process for assessment and feedback

2.9 Inducting students into the process
The induction module contains one short assignment (maximum 200 words) asking students to reflect on why they are doing the course, what they hope to gain, and what their worries are. This also had a cover page allowing practice of the whole process.

Evaluation of process
In the paper-based course and for the first six months of the new curriculum (before interACT was introduced) there was no formal dialogue process. Assignment sequencing gave some assurance to tutors that students submitting later assignments in the first two modules should have been given feedback for poor referencing / low digital literacy skills. Tutors could access previous assignments with comments through the grade centre but
reported this to be time-consuming. During this time an audit was also completed of feedback given in the paper-based course. The tool used was adapted by the team from work by Hattie and Timperley (2007). This was used for faculty development to identify collectively valued good written feedback.

3.1 Quantitative evaluation
Since the introduction of interACT virtually 100% success has been achieved with regards to the cover page. However due to the wiki not being compulsory, engagement in dialogue with the tutor through this route has been less successful. The first version involved students sharing their wiki with their tutor on one occasion in order to make the process work. Instructions and screencasts for this process were put on Blackboard, however between the 30th April and the 31st August only 101 students had attempted to share their Wiki, the majority successfully but with a few struggling to follow the step by step instructions. Further investigation found that 144 students had actually written on their Wiki within this period, highlighting that the number of students failing to follow the instructions fully with regards to sharing their wiki was greater than initially thought. As there was no way for the tutor to know that the student had written on their Wiki, this meant that dialogue between student and tutor was not occurring for around 30% of students.

From the 1st September 2012 time was allocated for administration of the process. This involved subscribing registered student wikis to a dedicated interACT email address and forwarding notification emails to the appropriate tutor. This allowed us to remove the Wiki sharing step from student and tutor instructions. The tutor email to notify students when an assignment is marked was also introduced at this stage.

Figure 3 shows the improvement in engagement with these enhancements for the certificate core modules (30-79% engagement before, 56-85% after).

<table>
<thead>
<tr>
<th>Assignment No</th>
<th>30th April to 31st August</th>
<th>1st Sept to 31st Dec</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Submitted</td>
<td>Wiki</td>
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<td>Induction</td>
<td>163(25)</td>
<td>103(9)</td>
</tr>
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<td>Teaching and Learning</td>
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<td>33</td>
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</tr>
<tr>
<td>4</td>
<td>24</td>
<td>16(1)</td>
</tr>
<tr>
<td>Principles of Assessment</td>
<td>1</td>
<td>23</td>
</tr>
<tr>
<td>2</td>
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</tr>
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<td>7</td>
</tr>
<tr>
<td>4</td>
<td>10</td>
<td>3</td>
</tr>
</tbody>
</table>

Figure 3: Engagement with wiki

3.2 Student perceptions
In-depth interviews were conducted with seven students. Examples of quotes about interACT have been mostly positive with students commenting on the value of it:

"[With interACT] you are then a bit more mindful of what your feedback was from the first one to any changes that you might make in the subsequent assessments ... it might make you a bit more thorough because you could easily say, that was a good result, I will think about doing that next time and then completely forget so if you're having to think about what you are going to say and then share it back with someone and it then perhaps forms part of what you have said you are going to alter for the next time, it just helps you to remember it a bit more"  

Interview 6

"[Before interACT dialogue] was just not a built in thing so I think if you were rushed or timid or maybe even insecure about the work that you were doing, itwould have been a little more intimidating [to email the tutor] but it was always very well received and promptly replied to."
But I like this better, as there is an element of expectation that there will be some dialogue.”  

Interview 3  
”[interACT] It does make you think, you write something and you get somebody else's perspective of it and you actually analyse what you've thought in the first place in the light of someone else's perspective and so you are getting another feedback. It was quite nice as I had comments back which re-enforced and smoothed out some of my worries as well so that's really useful.”  

Interview 2  
The responses were used to inform an online questionnaire and an invitation emailed to all students who had completed at least one new module (n=487). Fifty-four students (11%) completed the questionnaire. Of these 85.2% (n=46) of the students found the instructions provided about the assignment submission process were clear. The majority felt that the cover page was valuable, and that the process of self-evaluation and reflecting on feedback is valuable for their learning and promotes assessment and feedback dialogue.  

"Ability to request feedback about specific issues”  
"Allows last review of work before submission and focuses the self-assessment”  
"Gives you a chance to tell the tutor what your concerns about the assignment are ‘up front’”  
"It is a chance to think critically about how you approached the assignment and the assignment assessment criteria”  
"There is an element of expectation that there will be some dialogue”  

3.3 Staff perceptions  
Tutors were interviewed about their engagement with and views on the interACT process to encourage dialogic feedback. Overall tutors have rated it positively. Initial concerns about the time involved do not seem to be preventing tutors from engaging. It is time consuming but I think it's worth spending a bit more time on it and giving them feedback. Tutor 4  
We were worried that once you reply to them they'd reply back and there would be a knock on effect but generally that's not the case and if it is it will come by emails now, there are one or two students who email me after the wiki I suspect those are the students who would be constantly phoning me and emailing me anyway. Tutor 3  

Tutors valued the feedback they themselves received and their own development  
Sometimes the feedback is very clear and sometimes that may not be the case but because of interaction if they have misinterpreted it we can explain it. So we get feedback about our feedback. Tutor 4  
the question that I've probably got most use out of is number four - is there anything you didn't understand, and most of them say everything was clear but occasionally someone says there and that has as I said before led to me thinking oh yeah I could make that clearer  

Tutor 2  
It's certainly improved my feedback in terms of definitely quantity and hopefully quality as well so I'm giving more information now because I'm being constantly prompted and I realise I have to fill in, tick so many boxes, not in the sense of ticking a box but in terms of covering all these areas Tutor 3  

They also appreciated the ability to quickly respond to a student that a problem with the module had been addressed  
I also use it for closing the feedback loop so if they tell me something's wrong or they don't understand it then I will also use that to say ‘thank you for highlighting that, I have now changed it’. Tutor 2  

Tutors valued the opportunity to develop students' self-evaluation skills  
I like that I can give them feedback not just about the content but also about their self-evaluation…” Tutor 1  

Though there was a perceived need for faculty development in this area
we need faculty development …………. on how do you give feedback that does promote self-regulation of learning  **Tutor 1**  
maybe we need faculty training on that about how do we develop their self-review skills  **Tutor 2**

The question prompting students to highlight specific areas for feedback was felt to be important. They ask really good questions in what aspects you want feedback on that actually prompt you to think about something in more depth  **Tutor 1**

The time spent streamlining the process was valued  
Had we not been able to streamline it yeah. I think the others had already pulled out of using it because it was unworkable.  **Tutor 2**  
Absolutely, if we didn't have that, gosh I don't know if I would interact…  **Tutor 3**

They valued the easy method of checking previous feedback (a single click on the assignment name on the right hand side of the wiki which lists all page titles). It has also changed my approach because if I'm picking up something I will now go to the wiki and check previous assignments and check other student feedback  **Tutor 1**

Administrative staff found the number of technical queries had sharply declined after developing screencasts, streamlining the process and the introduction of the emailing alerting students to their assignment being marked.  
x went through the email dialog the other week for me and pulled them (technical queries) up and hardly any now and the majority coming into InterACT are nothing to do with the wiki or cover page it's just the students are emailing me instead of CME Courses or whatever, so yeah, there is nothing much coming in about that  **Administrator**

### 3.4 Feedback dialogue

48% of students agreed or strongly agreed that the process increased feedback dialogue. Analysis of the cover page and wiki journal content has identified dialogue occurring between the student and tutor on the cover page, between the cover page and wiki journal, within the wiki journal and even across assignments. The dialogue has prompted critical reflection and thinking about the content of the module, processes of completing the assignment (e.g. referencing, academic writing), as well as application of concepts beyond the assignment to professional practice as a medical educator. We have seen evidence of feedback of learning to future assignments.

From the cover page, we extracted examples of responses to the following questions:

- Which aspect(s) of your assignment would you specifically like feedback on?
- How did previous feedback inform this assignment?
- Aspects that the students would like feedback on varied and included:
  - "Ideas of not preparing too rigidly in order to be flexible within sessions - practical advice would be welcomed!"
  - "As the first essay I have written in nearly 20 years, I would like to know whether the standard overall was acceptable"
  - "Please advise me how I can enter a specific page number in a reference when using Endnote"
  - "Feedback on whether my peers have had similar thoughts for their own teaching, or other ideas that have been commonly developed would be beneficial in case I have not thought or considered them"
  - "any part of it"

Responses to "how did previous feedback inform this assignment? Included:

- "It made me realise that instead of focusing on a single or a few key teaching principles, I focused on many of them without going into much detail"
"Feedback that my writing style was agreeable was reassuring. I appreciated knowing my use of literature was valid so have tried to continue applying the literature to my work"
"I tried to be careful to define and reference jargon"
"It was really helpful in writing present assignment"
Dialogue has demonstrated that we are meeting the needs of learners in different ways. In one dialogue the tutor responds to the student by asking a question in the cover page and dialogue continues in the wiki with evidence of reflection and thinking of the tutor's question. In another the tutor responds to a concern about content of the assignment in a quick and efficient way.
Next steps
Following on from student and staff evaluation a number of issues still need to be addressed.
Whilst the quantity of engagement has been addressed, the quality ranges. In order for students to get the most out of this learning opportunity many need more support in self-evaluation and in understanding the rationale underpinning the process. In the next six months we will be developing a learning resource to familiarise students with the interACT principles. This resource will include feedback dialogue for them to analyse and reflect on. The cover page can seem repetitive, in particular the part referring to referencing. Although this is felt to be of value in early assignments we are planning a second cover sheet design workshop to discuss changes. As the cover page is different for each assignment we will be able to sequence these.
In order to assess self-review skill development we plan to introduce a patchwork assessment at the end of the Certificate. Students will need to evidence their achievements from their wiki journal.
5. References:
Online Peer Assessment in Undergraduate Physiotherapy Education

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ABSTRACT: This study evaluated the effect of online formative peer assessment on undergraduate physiotherapy student performance and perspectives related to the use of formative peer assessment within their studies. 21 students took part in the study quantitative element of the study, whilst only nine students completed the qualitative questionnaire. Qualitative responses indicated that the experience of the activity was mostly positive. Reported benefits were: help in structuring study activities, improved learning and useful feedback. Negative responses indicated variability in the quality of the feedback and a lack of trust in peer’s comments. No significant difference was found in the final assessment results however although there was a non-statistically significant reduction in the number of students awarded the lowest pass grade and fail grades. Students reported positively about the process and it appeared to enhance academic performance. However, a lack of confidence in feedback provided by peers was also reported.

1 Introduction

In 2010, a format of the BSc (Hons) Physiotherapy programme at Robert Gordon University was initiated, including a module in semester one of year two which involved education regarding common neurological pathologies as part of its’ content. The new course format allowed of this aspect of teaching to be delivered via group work utilising an enquiry-based approach, requiring students to actively engage with the materials and discuss their findings in feedback tutorials. Whilst this approach allowed students to report back a great deal of detail regarding the pathologies in and link the pathologies to clinical symptoms in the feedback tutorials, the performance of individuals in the module assessment was poorer than anticipated in this area. In an attempt to address this, the next year’s cohort were set a short, standardised piece of work on specific neurological pathologies to submit online individually for formative feedback following the group work. It was also hypothesised that this could be peer assessed to further develop student understanding in relation to this topic of learning. This allowed an opportunity for the trial within the university of a new, fully online system for peer assessment, called Aropā, in the management and evaluation of this exercise.

1.1 Peer Assessment

Cassidy (2006) states that:

"Student peer assessment is one example of educational practice which is likely to contribute positively towards the development employability skills" (p. 509).

Described by Falchikov and Goldfinch (2000) as involving engaging with standards and criteria to allow judgements about the work of peers to be made, peer assessment can be beneficial in developing the ability to make judgements, supervising work and to encouraging responsibility for learning (Gibbs, 1995). In a study of student perspectives of formative peer assessment, Vickerman (2009) found that formative peer assessment can be a positive experience in enhancing students learning and development. These findings suggest that the introduction of formative peer assessment may be of benefit within the aforementioned physiotherapy module through greater individual engagement with the area of learning, which could enhance performance in this aspect of the assessment.

1.2 The Aropā System
Aropā is a web-based system designed at the University of Auckland to support peer review activities in undergraduate education (Hamer, Kell and Spence, 2007). In their study evaluating the use of Aropā in three different courses (Pharmacology, Computer Science and English) Hamer, Kell and Spence (2007) stated that students reported that peer assessment aided their learning at many different levels, as a consequence of the various aspects of the activity.

The study also highlighted different reactions from students in the three subjects. Within Computer Science and English, the activity was well accepted, whereas in Pharmacology there was notable resistance to the activity. However, the Pharmacology students were the only group for whom the results of peer assessment through Aropā contributed towards their summative assessment and, whilst recognising the benefits for their learning in engaging with the task, students reported feeling overloaded at the time of doing the task and having concerns over the fairness of marking. In response to this, Hamer, Kell and Spence (2007) report that overall marks were typically agreed very closely. This suggests that, so long as overall workload of students at the time of the exercise is carefully monitored, use of Aropā as a formative peer assessment tool may be valuable and reliable resource in enhancing student learning.

The aim of this study was therefore to explore the use of the Aropā system in the formative peer assessment of undergraduate physiotherapy students in relation to their learning on neurological pathologies.

2 Methods

2.1 Study Design

An action research design was be utilised in this study. The study included a qualitative component with regards to student perspectives related to the activity, and also a quantitative element with regards to student performance. A questionnaire was issued to the intervention group to establish student perspectives on both online formative peer assessment and the use of the Aropā system. Performance of the intervention group in the pathology section of the summative examination of the module, which took the form of a viva examination, was then compared to performance of the previous year's cohort on the same section of the examination. This examination was graded from A to F with specific criteria for each grade provided through a grid. Overall grades of A-D were considered a pass of the examination.

The investigator was blinded to the results of individuals within the study to eliminate any potential bias, along with the assessors being blinded to submissions by participants during the study. Quantitative data was recorded on coded paper forms, which was stored in a locked location, with results transferred to a password-protected electronic document. Audio recordings of the examinations were also stored in a locked location. The study protocol was reviewed within the School of Health Sciences at Robert Gordon University through their School Research Review Group and modifications made on their recommendation.

2.2 Population and sample

All 32 students from year two of an undergraduate physiotherapy course were issued with an information sheet regarding the aims and objectives of the study. A convenience sample of 21 students volunteered to take part in the study and provided informed consent, making up the intervention group (IG). All students were enrolled in the module were given full details in advance and were invited to enrol in the study. The students were all required to complete the peer assessment task as part of the module, however they were given the opportunity to
opt in to the evaluative questionnaire and to having their examination results included the study if they chose to take part. The control group (CG) for the quantitative element was the entire cohort from the previous year’s examination of the module, which was a total of 40 students, therefore the CG completed the module twelve months prior to the IG.

2.3 Research Protocol

As part of the teaching, both the IG and CG were required to work in groups and feed back to the whole class on a range of issues related to four specific neurological pathologies through an Enquiry Based Learning (EBL) approach focused around a series of case studies. The case studies were the same for both groups. However, following the group presentations, the IG were required to individually submit a short synopsis of their learning related to each pathology using a standardised format. Once submitted, each student was required to complete a formative assessment of two of their peers through use of the Aropā system. The system randomly and anonymously assigned work to each student for peer assessment, with the reviewer unable to identify the student submitting and vice versa. Students were intentionally not given specific training in providing feedback, rather they were simply told to provide feedback that they would wish to receive themselves. This was to encourage students to consider their expectations of feedback on their assessments. It was also proposed that the process could potentially develop a greater understanding of the assessment requirements and the expectations of their learning outcomes.

On completion of the peer review activities, the IG was asked to complete a questionnaire which included the following questions:

Describe your experience of using the Aropā peer assessment system. Did the peer review influence your learning, and if so, how? How would you rate the feedback that you received in the activities? What could have been improved with regards to the peer assessment activities? Would you have preferred another method of feedback on your learning of neurological pathologies, and if so, what would this method be? It was aimed for same examiner to complete the viva for both the CG and the IG, as they were blinded to all other aspects of the study However due to unexpected circumstances the examiner was not available on the day of the examination of the IG. Therefore the principle researcher was required to assess this component of the examination. In order to minimise the risk of researcher bias, audio of the viva was recorded and the original examiner utilised this to mark the IG at a later date. The same marking criteria were used for both examinations.

3 Results

3.1 Qualitative Findings

Nine students from the cohort of 32 (28%) returned completed questionnaires. A thematic narrative question by question analysis of the responses follows, with descriptive statistics also provided for question 3. A second member of the teaching team within the School of Health Sciences also reviewed the responses to confirm that themes were appropriate, therefore triangulating the process.

3.1.1 Question 1: Describe your experience of using the peer assessment system. Responses regarding question 1 described generally positive experiences in using Aropā, with all students providing at least one positive comment. Five students (55% of respondents) commented on the ease of use of the system, with commenting that:
"I thought Aropâ was easy and clear to use. I never had any problems or confusion when using it."

"Logging in and uploading was simple,"

"[The system provided] a good level of instruction for user."

In addition to these comments, five students (55%) also remarked positively on the impact of using the Aropâ system on their knowledge of the topics being studied, stating that:

"I felt I have learnt a lot from this system and my knowledge of the pathology is a lot better."

"[It was] Good as allowed us to view other's work which we could compare with ours' and add anything we thought was good to ours', but also clear anything we were confused about."

"Grading other people's work.....made us more aware of the level of detail/knowledge that is required by a physiotherapist."

There were two negative comments (22% of respondents) with regard to formative peer assessment however:

"I felt that because our peers only have the same knowledge as the writer of the piece of feedback it is hard for them to give good feedback as they only have limited knowledge."

"I didn't feel I had the appropriate level of knowledge to mark someone else's work."

3.1.2 Question 2: Did the peer review influence your learning, and if so, how?
Six students (67%) responded positively to question 2, with two (22%) responding negatively and one mixed response (11%). The negative comments were:

"Because I knew my classmates were marking it, I had less faith in the feedback",

"Doing the peer review was difficult as I did not know myself if what I thought was wrong was actually wrong",

"[The] feedback....wasn't really constructive."

Within the positive comments, five students (55%) remarked on the benefits of the peer assessment process in developing their learning:

"Different learning styles from other students highlighted areas that I can improve on"

"[The process led to] better understanding of how my assignments will be marked with the use of the grid having had to do it myself."

"The two items I had to review filled the gaps in my learning and you learn to know generally what the examiner is looking for."

Four students (44%) also remarked positively on the fact that the peer assessment process helped them structure their studies through having to submit pieces of work. Students commented that:

"It made me make a more concerted effort to do pre-reading and assess my knowledge and understanding".
"I got the best out of myself by having to submit a piece of work."

"[The deadlines set through the process] made me complete work by a set time and kept me on track."

3.1.3 Question 3: How would you rate the feedback that you received in the activities?

Descriptive statistics displaying the responses to question 3 are available in Figure 1. This highlights that the majority of students responding found the feedback received "Fairly useful."

Qualitative comments regarding the usefulness of feedback received from peers was less positive than other aspects of the process, summed up in the comment that:

"I felt that my reviewing of other's work was more beneficial to me than getting the comments back from others on my work."

Variability in the feedback provided from peers appears to have been an issue with students stating:

"The feedback in general was good, sometimes it was very minimal though,"

"Some of it was terrible."

A theme that also emerged from four students (44%) was a lack of trust in the comments provided by peers. Regarding the feedback, students stated:

"Very rarely was it constructive but this is understandable as the individual who was marking also had limited understanding of the topic",

"I didn't know how correct the comments were as we all have the same knowledge."

"You had to keep in mind people marking were not lecturers".

"[The feedback] was useful to an extent but limited in the fact that it is another student that is viewing your work and not as experienced as a lecturer."

![How would you rate the feedback that you received in the activities?](image-url)
3.1.4 Question 4: What could have been improved with regards to the peer assessment activities?
Themes were less conclusive in response to question 4, however two students (22%) commented regarding the involvement of lecturing staff in the process. Students commented on ways they felt the process could be improved through:

"Having evidence of a lecturer overseeing the reviewing process or grading".

"[It would be better] if 1 out of our 4 or 5 submissions was marked by a lecturer to make sure we were on the right track."

Three students (33%) felt that more guidance as to what constituted a correct answer would be useful, with students remarking:

"Show what a perfect piece of work looks liked (A grade) post-review. It would allow for people to fill in the gaps and what is needed to progress."

"Maybe for marking there could have been a list of the main points that had to be included just in case that the person marking wasn't extremely confident on the subject."

Another student felt the activities could be improved through:

"More guidelines on critiquing work or example of good feedback."

Finally, two students (22%) also commented with regard to the fact that they did not receive all of their feedback. One student commented:

"Make it mandatory, didn't get all mine back despite one for every subject I had."

Another student felt that responsibility for this type of issue may rest with the students, stating:

"People making deadlines - this is a responsibility of the students not the system."

3.1.5 Question 5: Would you have preferred another method of feedback on your learning of neurological pathologies, and if so, what would this method be?
Differences in opinions were notable for question 5. Three students (33%) were content with the feedback process, with comments that:

"I thought this method was good and being able to get reviews from 2 different people clarified where my strengths and weaknesses were."

"[I] was quite happy with this as it has given me a tangible output for studying."

Four students (44%) remarked on need for more lecturer involvement, with remarks that:

"Feedback from the lecturer as then you know the answers you have are right and have the correct amount of detail."

"[Lecturer feedback was] not possible to do for everyone."

"Perhaps a lecturer could add comments if they felt there were some lacking."
Two students (22%) would have preferred more feedback through the use of quizzes in addition to the peer assessment tasks, commenting:

“Maybe there could be an online quiz to see if fully understand”.

“[It] could be used in conjunction with a pathology revision session just to let us know if we were on the right lines or not. A quiz or something to test our knowledge would have been useful.”

3.2 Quantitative Findings

The percentage distribution of grades for both groups can be seen in Figure 2. Descriptive statistics suggest a shift from D and E grades in the CG towards B grades in the IG, with the proportion A and C grades remaining similar in the two groups.

In order to test for statistical significance in these results, a non-parametric analysis was completed using a Mann-Whitney U test through SPSS Version 15. Results from this analysis are displayed in Table 1, where no statistical significance is found for the distribution of grades between groups, although it is of note that the difference for grade B nears significance at p=0.100.

![Figure 2: Percentage distribution of grades in CG and IG](image)

<table>
<thead>
<tr>
<th></th>
<th>Mann-Whitney U</th>
<th>Significance</th>
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</thead>
<tbody>
<tr>
<td>A</td>
<td>408.5</td>
<td>0.684</td>
</tr>
<tr>
<td>B</td>
<td>334.5</td>
<td>0.100</td>
</tr>
<tr>
<td>C</td>
<td>412.0</td>
<td>0.886</td>
</tr>
<tr>
<td>D</td>
<td>385.5</td>
<td>0.447</td>
</tr>
<tr>
<td>E</td>
<td>388.5</td>
<td>0.202</td>
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Table 1: Results of non-parametric inferential analysis.

4 Discussion

Although Figure 2 suggests a positive impact of the peer learning activity on student performance within the module, this change was not found to be statistically significant. This is likely to have been as a result of the small sample size in the IG, which created difficulties in establishing significance. Whilst statistical significance addresses the question of how likely a result is to be true, it is not an indicator of the importance of a result (Shaver 1993).
Therefore it may be suggested that the importance of the shift to a greater proportion of higher grades should not be entirely discounted.

The comments of students regarding formative peer assessment using the Aropā system highlight some common themes. Firstly, the process of conducting the peer assessment of other student’s work appears to have been perceived as a more valuable experience than receiving feedback from peers. This is consistent with previous literature which has suggested that during the process, students are actively engaged in articulating evolving understandings of subject matter, which enhances their learning, yet on receiving feedback, some students may feel that their classmates are not qualified to provide insightful feedback, whilst others may be more accepting (Liu and Carless 2006). Students were also positive about the process allowing them to share ideas and knowledge. This is in keeping with the findings of Vickerman (2009) who found the majority of students surveyed valued the process for allowing discussion, debate and sharing of ideas and concepts.

Indeed a second theme that emerged through the different questions was the desire for greater involvement of tutors through the process. Strijbos, Narciss and Dünebier (2010) similarly found that, irrespective of a high correlation between student and teacher marks, students remained concerned about the value of peer assessment. Vickerman (2009) reported that students who found peer assessment less useful often found the process difficult at times. In this study, students requested guide answers to assist their assessment of peers, however it could be argued that this would negate the level of self assessment associated with the conducting the assessment of peers which would negate a valuable aspect of this educational experience. Therefore, considering the first two themes, it may be suggested that educating the students involved in the value and quality of peer feedback may alleviate student fears.

A third theme emerging from the questionnaires was that the peer assessment process using Aropā was useful as the regular deadlines for submission of work helped students to structure their study time. Whilst there is little evidence available to support this phenomenon, it could be considered as being consistent with the findings of Liu and Carless (2006) who stated that the process enables students to take an active role in the managing their own learning. However it should also be highlighted that regular deadlines may also have a potentially negative influence on learning for some students. This is in keeping with the findings of Vickerman (2009) that peer assessment was more accepted by certain learning styles.

In keeping with the findings of Vickerman (2009), whilst a proportion of students found the experience to be positive in relation to their learning, some students found the process to be less useful. It is also worth highlighting the frustration that was apparent in the students in this study due to the lack of consistency in feedback provided from peers. Van der pol et al (2008) also found mixed results when investigating how useful students interpreted the feedback received and reported that feedback which provided positive comments was received more favourably than feedback which addressed areas for improvement. This further highlights the importance of providing training in the provision of feedback to students involved in peer assessment activities, which was not a component of this study.

### 4.1 Limitations

The use of the previous cohort as a control group is a potential limitation as it is impossible to establish if the same level of information is shared within the teaching and, as a result, may introduce a confounding variable. However, the use of this control group allows equal opportunity for access to learning resources for all students within the two groups. It is also possible that there may be differences in knowledge base in this area from prior experiences.
and from the delivery of other components of the module, therefore changes between intervention and control groups may not be entirely attributable to the intervention. The difference in sample size between the two groups was also a limitation.

5 Conclusions

The IG demonstrated a shift from lower to higher grades following the peer assessment activities, however this change was not found to be statistically significant. The online peer assessment process was generally well received, with the majority of students reporting that they were willing to use the Aropâ system again in their future studies. The process of completing the assessment of others was reported of being a particularly valuable experience, however the feedback received from peers was reported to be less useful. The process was also favourably received for the manner in which it allowed students to structure their studies. It is suggested that training for students in providing feedback prior to commencing online peer assessment may be worth further investigation to establish if this positively impacts on perceptions of the process. Finally, evaluation of student perspectives could be correlated to favoured learning styles to identify the relationship between these factors more clearly.

6 References


"Live" Business Problems in Learning and Assessment

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ABSTRACT: This paper describes and evaluates the use of "live" business problems in learning and assessment for undergraduate students studying Accounting, Finance and Business. Since 2009 "live" business problems have been integrated into the teaching and assessment of some accounting and finance modules. Different organisations in the public, private and charity sector have been engaged in the process. The paper outlines some of these "live" problems and how they have been integrated and assessed and how their use has provided enhanced employability skills for the students as well as a wide range of solutions to the participating organisations.

1 Introduction

An opportunity for Accounting and Finance students to be involved in a "live" business problem became available in 2009. This opportunity was presented to all Business Schools in the UK by a sales management company based in the UK. It was to be run as a business competition with a cash prize for the winning team. After discussions with the sponsoring company putting forward the challenge it was agreed that at the University of Abertay Dundee it could be embedded into a 3rd year accounting module and be part of the assessment of that module. Students were provided with extensive financial and background information to a failing company with the remit to make recommendations to "turn the company round".

The students worked on the material in groups of 4 students and conducted extensive research into possible alternatives. Each team was also afforded a 25 minute teleconference with one of the Directors of the company where they had the opportunity to ask questions to further enhance their understanding of the situation and help them to formulate their recommendations.

These recommendations were assessed via an individual bi-weekly reflective log, a Group Business Report and presentation and were also entered into the Business competition. The feedback from students as a result of the exercise was very positive and stressed the importance of putting their learning into practice in a "live" situation. Response from the sales management company indicated that they implemented some of the ideas generated by the students, the failing company was later sold off and generated a high return for the sales management company. A "win: win" for both parties.

As a result of this exercise "live" business problems are now embedded in many modules both for accounting and non-accounting students at the University of Abertay Dundee. This has proved to be very valuable for all the organisations, which are extremely varied, across the public, private and charitable sectors as well as for the students. Organisations are approached by the respective module tutor and the discussion centres around what the module outcomes are and the particular issues the organisation is facing that would be relevant for the module assessment. Appropriate material is made available by the organisation to support the assessment. The students all have the opportunity to participate in a question and answer session with a representative from the organisation either face to face or via tele-conference, depending on the organisation. The representatives have also engaged in video conference sessions with our collaborative partnership students.
2 Experiential Learning

"I HEAR, AND I FORGET
I SEE, AND I REMEMBER
I DO, AND I UNDERSTAND."

(Confucious, Ancient Chinese proverb)

The use of experiential learning pedagogies has increased in the last fifteen years with a greater focus on student-centred approaches to engagement. David Kolb (1984) established the experiential learning theory developed from other experiential learning models of Rogers, Piaget and Jung, "learning is the process whereby knowledge is created through the transformation of experience" (Kolb, 1984, p. 38). According to Fry et al. (2000), "experiential learning is based on the notion that ideas are not fixed or unchangeable elements of thought but are formed and re-formed through experience". Learning is thus a cyclical process, based on experience. The University of Abertay's Graduate Attributes reflect what we value most: "the development of our students' intellectual and social capacity to make significant contributions to society, find creative solutions to real-world problems, and work in complex and interdisciplinary contexts." (UAD 2011 p. 8)

The University also recognises the need to nurture enterprise and entrepreneurship skills with our students to enhance their employability and to initiate, promote and develop enterprise education across the university as identified in the 2012 QAA report, Enterprise and Entrepreneurship Education: Guidance for UK Higher Education providers. In order for the students to be able to engage in discussion at interview and beyond they will be better equipped to do so if they have experienced working on a real business problem and engaging with organisations, making recommendations and seeing the results of these. According to Camarero et al. (2009) using real-world scenarios for course material supports students in the development of their skills enabling them to put theory into practice to solve real problems. Student engagement is also enhanced but there is a requirement for students to make the commitment. According to McWilliams and Nahavandi, (2006) one benefit of employing live cases is that it is "accessible to most faculties without the need to invest in learning new pedagogies such as role plays or simulations". Through the inclusion of real problems provided by organisations, students are able to experience first-hand the issues faced by organisations and have the opportunity to apply their learning to making recommendations for solutions to these problems.

Faltin, (2001) espouses that we need to encourage entrepreneurship. By providing opportunities to students that allow them to test out their skills, this may allow the development of future entrepreneurs. Using live business problems can increase the workload of the tutor through the time required to engage the organisations and work through the development of an assessment which meets the needs of the curriculum, however the rewards gained by the quality of the students learning and the value added to organisations is invaluable (Mckenna, 1999).

3 The "Live" Business Problems

The following provides examples of recent "live" business problems:

3.1 Children 1st - Kilts for Kids Charity Fundraiser

Background - CHILDREN 1st run four services in the Dundee area, including the Dundee Supporting Families service. This service works to help vulnerable children who have been affected by substance misuse, family breakdown, abuse or neglect. The service aims to prevent exclusion from home, school and the community to strengthen families and help children and young people fulfil their potential. The Dundee Charity shop, on Perth Road,
which is run and managed by volunteers, celebrated 20 years last year and raises over £36,000 annually for CHILDREN 1st.

**Task** - 3rd year Accounting with Finance students were tasked with generating more awareness of the CHILDREN 1st annual "Kilts for Kids" event, which used to take place towards the end of November each year, as a coursework assignment. They were provided with very limited background information and were then required to liaise with CHILDREN 1st, to identify potential areas for improvements, perform market research and analysis, and to produce new ideas for promotion. The students then submitted group reports and presentations on their findings.

Ideas ranged from tartan wristbands to large scale live music events. One of the students commented: "We looked at things that hadn't been done before and ways of increasing awareness at local and national levels. We found that businesses and entertainers were more than happy to provide venues and services for free to charities and I think a live music event would really go down well in Dundee and raise a lot of money for CHILDREN 1st.

It was a really interesting assignment and we enjoyed the responsibility. It'll be great if our ideas can help CHILDREN 1st, and it'll be really satisfying to see them put into practice."

It was not only Abertay campus-based students who were taking part, students from Adam Smith College in Fife and SEGi University College in Malaysia completed the assignment too through Abertay's academic links.

Matthew Middler, a Senior Regional Fundraiser at CHILDREN 1st, said: "Our charity shop in Dundee has been set up and run by volunteers for 22 years. This small, unassuming retail unit raises over £36k profit for CHILDREN 1st annually. As well as engaging the students and staff in the work of the charity, it highlights that good business is not just about the big companies and not always for profit.

We have been amazed by the enthusiasm and ingenuity of the students. The process of engaging the students with a real project which raises money to support Scotland's most vulnerable children and young people has been thrilling. Many of the ideas presented by the students have now been implemented."

The students have been very encouraged to see that some of their ideas have been implemented by CHILDREN 1st and have been keenly watching their website. The students are also benefitting from the experience of working with the third sector; many of them have indicated that they will consider this sector in future employment.

**3.2 Dundee Football Club**

**Background** - In 2012 Dundee Football Club began the new season in the top flight of Scottish Football following seven years in the lower divisions and two periods of administration. Its loyal core support has taken a majority shareholding in the club, and while the team faces challenges on the park, the club is aiming to attract more supporters to games, particularly young fans. The club faces the challenge of neighbours Dundee United Football Club who are well established in the SPL and who have attracted a significant young following as the more successful side in the city for the newest generation of supporters.

**Task** - In groups, the students were required to explore all possible avenues for Dundee Football Club to increase attendance figures, using the information available from one of the club directors and via online resources and the question and answer session provided by two of the directors together with any additional resources they chose to use. They were then required to make recommendations to Dundee Football Club as to how they could attract more people to attend matches and ultimately increase their revenue.
Dundee Football Club were extremely impressed with the ideas presented to them via the students reports and provided feedback to the students on which of the recommendations they have now put in place.

3.3 Harris Tweed

**Background** - "The Carloway Mill is the smallest of the three existing Harris Tweed textile mills, it is proud and privileged to have a workforce whose artisan skills and creative abilities are of an exceptional level, allowing the Mill, with its traditional craft machinery, to produce unique, individualistic and bespoke Harris Tweed cloth of the very highest quality, to the very highest standards. The Mill has a mix of textile machinery of different ages with one of our carding machines dating from 1906, but like a vintage car, it has quality and style, producing outstanding yarns from top quality Cheviot fleeces. The finishing machinery is unique and exclusive to The Carloway Mill, it is wooden, and creates a gentler and softer milling motion to the Harris Tweed cloth, than the more modern stainless steel machinery." The Carloway Mill (2012)

**Task** - In groups, the students were required to explore all possible avenues for Harris Tweed Carloway Mill using the Business Plan provided by the company, the question and answer session from the Chief Executive together with any additional resources they chose, and to make recommendations as to how the financial outcome for Harris Tweed could be improved for 2012/13.

Feedback from Derek Reid, Harris Tweed - "please pass on profuse thanks to your students, a very high calibre of feedback, and their invaluable assistance in helping our company make the progress it has made and undoubtedly now will make in the future."

3.4 Linden Furniture - Development of the company’s next 6months budget

**Background** - The owner of a local furniture store has been concerned about the decline of the business and the difficulties experienced in a very challenging and competitive marketplace for home furniture. He approached Dundee Business School for some help in analysing and evaluating the marketplace, and his own business position. He just isn’t sure what, if any, opportunities and threats exist for a small furniture outlet based centrally in the city of Dundee. He is also keen to have a realistic budget prepared for the forthcoming period.

Stage 4 students undertaking a Marketing module were tasked with producing a Marketing Strategy for the business. The 2nd year Accounting with Finance students were subsequently provided with the best Marketing Strategy from this cohort of students as a basis for the following task.

**Task** - Linden Furniture has not been generating sufficient profit and the owner tasked the students to look at the information provided and make recommendations as to how this could be improved, using the financial information together with the Marketing Strategy provided by a different assessment. The students were also required to identify where improvements could be made and to produce a summary budget forecast for the period from 1st July to 31st December 2013 and to explain how they think this could be best achieved.

The students had the opportunity to meet with the owner of the business and they asked very detailed and searching questions. The owner was extremely impressed by their grasp of the problems and their recommendations as to how the financial position of the company could be improved. Most of the students also visited the furniture store to help their understanding of the problems faced by the company.
At the time of writing this paper the students have not yet given their presentations so a detailed response from the owner is still awaited.

3.5 Dundee Football Club - Development of KPI's

Background - Dundee Football Club operates from Dens Park Stadium in Dundee, and its core revenue comes from match day activity - ticket sales, corporate hospitality, and associated sponsorship and advertising. The stadium's main grandstand includes a boardroom and 6 lounges accommodating between 12 and 120 people each, plus a learning & development centre. There are no lounges in other sections of the ground.

There are usually fewer than 25 match days per year, and while the learning & development centre is used from 9am-5pm Monday to Friday by Dundee City Council’s “Kick-It, Kick-Off” project, the lounges are greatly underutilised on non-match days (some private meetings, functions, weddings etc.). They represent a significant potential revenue stream for the club which is seeking to re-establish its financial stability and growth following a recent, second, period in administration.

Task - The students were required to conduct research into potential markets and revenue streams which would utilise the meeting and hospitality space available at Dens Park, explore Dundee FC’s position in such markets and how the club can measure its position and fulfil its potential. They were then asked to make recommendations on how Dundee FC can enter or grow in such markets, detailing the potential revenue and costs associated with such diversification.

They were also required to identify the Key Performance Indicators (KPI) that could be used to measure performance after the implementation of their recommendations and provide justification for each KPI, together with an indication regarding how the information could be gathered and reported on.

The students undertaking this assessment were given the opportunity to visit Dundee FC’s football ground where they were taken on a tour of the hospitality suites and the ground itself. They also had a question and answer session with one of the Directors, who was very impressed by the level and detail of their questions.

At the point of producing this paper the assessments have still to be submitted so no comments are yet available from Dundee Football Club.

4 Feedback from the Students

Participating students have provided very positive responses to the experience gained from the above "live" business problems. Examples of some of this feedback is summarised below:

4.1 4th year students on Dundee Football Club Project

"I would like to say that the use of "live" business problems in our coursework was a really good decision. It made me concentrate not only on the theoretical part of the KPIs but on the practical side as well which helped me understand the subject in detail and to be able to apply it in a real environment, which cannot be achieved if we didn’t have the chance to involve the theory in a real situation."

"I have found that working on a "live" business problem such as Dundee Football Club has given me a much greater interest in the subject and I have thought much more deeply about
the matter as I know it may go towards making a difference to a local business. It also lets me see more realistically how theory learnt in class can be applied to real businesses. It will undoubtedly help me in the future as I have learnt to consider the business as a whole, rather than focusing on one particular aspect."

"I believe that such kind of experience will assist us a lot during an interview for example, as we will be able to talk about a real problem and what kind of solutions we suggested and not only about hypothetical situations - all employers are looking for skills that you actually applied in your life and through this coursework we can have a really good example of applied skills in a real business environment."

"I thoroughly enjoyed the experience. It was beneficial to see the facilities we would be working with as to get an idea of the possibilities they could be used for, and it made the situation much more real. It also made the unit much more exciting knowing that some of our ideas could actually be used in real life to help DFC strengthen their position. I definitely enjoyed a live business problem much more than a case study from a textbook."

"It makes it more interesting as you know that it is not just a scenario and that there are genuine solutions being sought. Being able to visit the football stadium and meet with the manager all added to the experience. My opinion is that it encourages you to look a bit harder for ideas and solutions."

"You become more involved with the organisation than if it was a text-book case and I am also considering offering to help the organisation over the summer to implement some of my ideas. It was definitely a valuable, entrepreneurial experience that has boosted my confidence and it has been good to be involved in something useful whilst learning. It has been an experience that we will not forget."

4.2 Feedback from 4th year Class Representative

"As class rep, the impression I received was that everybody enjoyed the visit, and would likely do something similar again if the course allowed scope for such."

4.3 3rd year student on Harris Tweed Project

"I thought it was excellent to have a real situation to work on rather than textbook. The opportunity to ask questions to a representative was also a bonus."

"I felt that having this type of thing at degree level was a great idea, it gives you a better insight as to how businesses actually operate. Also, the problem which my team and I were presented with allowed us to think on our own terms, instead of sifting through books and articles to find a solution."

4.4 2nd year student on Linden Furniture Project

"I like the idea of the live business problems, it's much better than doing a case study as you have actual materials to work with such as the p&l and the balance sheet and other information about the company. Also you are more enthusiastic as it's a real situation you are dealing with and hopefully at the end of a live business problem you hope that you have helped the company in some small way."

5 Conclusion
In addition to the valuable experience clearly gained by the students, the participating organisations also gain from having a large number of students looking at the business issue
they have provided. They subsequently benefit from a variety of possible solutions that the students are able to provide "thinking outside the box", outwith the constraints of the organisations environment.

The participating organisations subsequently provide feedback to the students, explaining why some ideas may have been rejected whilst others have been accepted and often implemented. The University also gains from the live business experience through the enhancement of contacts with external partners and the building of relationships with the local community.

References


What if feedback only counted if the learner used it?

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ABSTRACT: Most teachers give written feedback because it is a required deliverable, like a checkout assistant handing every customer the printed receipt, even though few use them. However there is no point in giving feedback unless the learner uses it: modifies or actively reappraises something specific as a result. This paper explores the theoretical and practical implications of taking this as the starting point. It suggests we should study techniques which actually, have shown some success. Three are discussed which cover both marks and open-ended feedback comments; and three types of student goal: regulating the effort they apply to learning, correcting knowledge and understanding, and improving procedural skill. Crucial to these interventions seems to be that, in one way or another, they prompt students into processing the feedback. This does not seem to happen automatically.

1 Introduction
This paper concerns feedback (from teachers to learners) in Higher Education (HE). It explores the implications of a shift of perspective from focussing on the supply of feedback to focussing on its consumption: on whether and how it is used by learners (and therefore could contribute to learning). This shift is like the difference between a rain god, proud of her broadcast provision across the planet, and especially in winter and on mountain tops (when and where it is least needed even by plants); and a disaster manager, focussed on emergency provision of safe drinking water to humans, where it makes a vital, life-saving difference, but only when it reaches and is actually drunk by people. The enormous difference between the total rainfall over a country, and the volume of bottled water actually drunk might make us wonder for a moment how much of the feedback available is actually productive of learning.

The paper starts with some reasons for such a shift of perspective: the frequent disregard of feedback, particularly comments, by students, the outdated teacher-centredness of viewing feedback as a one-way action by teachers on learners, and the overlooking of the active work by students required to process feedback into action. It then develops the new perspective by discussing cases where learners have definitely used feedback productively, how they have used it, and how they could or wish to use it. The relationship of the argument here with related points in the existing literature is briefly reviewed. It concludes by suggesting what was overlooked in past research on feedback, and by summarising the new perspective as a design approach for practitioners and innovators.

In this paper, I use "marks" to refer to a quantitative judgement of merit (whether a grade or a percentage or some other unit), and "comments" to refer to open-ended, natural language communication about a piece of student work. I use "feedback" to refer to either or both of these: to any potentially useful information a student receives about their work; and "assessment task" to refer to the task done by a learner which may receive feedback. I would count feedback as having been used (i.e. effective) when and only when the learner modifies or actively reappraises something specific as a result of it.

Bear in mind however that people usually tacitly assume that "feedback" means "individualised comments from another person", or in education "written comments from a teacher", unless the context strongly imposes another meaning. If you ask a footballer practising set-piece kicks whether she got feedback on an attempt, she is unlikely to say "yes, I could see that my shot went over the goal". If you ask a schoolboy doing mathematics homework whether he got feedback, he's not very likely to say "yes, I checked my answer against those in the back of the book". If you ask a student discussing a key concept with friends whether that was useful she might say yes, but if you ask her if she got feedback she is unlikely to say that the differing views gave her diagnostic feedback on what she did and didn't understand adequately.
If we are to understand what best promotes learning, however, we don't want to presuppose that the solution is individualised comments from another person, but to enquire what sources (under what circumstances) can actually be shown to do that. This difference in what is understood as "feedback" renders much data on feedback ambiguous: whether it is the National Student Survey (NSS), or some of the interviews with students mentioned below.

2 Why change our perspective on feedback?

2.1 Symptoms of the problem from practice

What follows is a mixture of reports from my own experience with feedback and students, which I expect will find echoes in many readers' experience, and published accounts of similar phenomena.

According to surveys such as the NSS, students often complain about not getting enough feedback, although this is sometimes contested by staff. Either way, however, it suggests that feedback is not helping them adequately with the goals for which they wish to employ it. Students often don't collect feedback, which suggests they don't expect to use it. Even more common is that on picking it up, they look at the mark and ignore the comments (Hounsell, 1987; Orsmond et al. 2005). Thus often feedback comments are not used (because not seen) by students even when supplied and put in front of students: a problem of processing not of supply.

I have had students read my feedback (because I adopted advice from the literature, in light of the above issues, to force them to read it in my presence) but say that they do not see how it would help with future work. Since this includes students who went on to be ranked near the top of a competitive class, it is unlikely that this is something wrong with the students. Increasingly staff complain that students will not do formative work unless it is summative: i.e. required. This indicates that many students have no expectation of feedback benefitting their learning, perhaps because they have no experience, or at least awareness, of it doing so.

These symptoms do not directly tell us what to do, but they do suggest that simply supplying feedback is a failed approach in practice. To understand more, we should study cases where it actually is used by learners.

2.2 Symptoms of the problem from theory

Considering feedback as something that is done by teachers to students is a profoundly teacher-centered view, and completely incompatible with a constructivist approach.

Considering what and when feedback is used brings learners back into the consideration they receive in all other current theory of learning and teaching.

Similarly, transmitting individual written feedback is at odds both with social aspects of learning (peer interaction, communities of learning), and even more basically, with any ideas of the central importance to feedback of dialogue, as explored in Nicol (2010). Hattie (2009, p.173) goes so far as to say that he now sees that feedback is most powerful when it is from learners to teachers: opening a dialogue, and permitting contingent (as opposed to monologic) communication from the teacher.

2.3 Learning from feedback requires significant mental processing

If you are using feedback for work, e.g. polishing a document for a customer, then the most effective feedback will dictate to you how to revise the product, and hopefully requires little effort to understand. Marking up proofs for a printer is like this. If however you want feedback to cause learning rather than work productivity, then things are different: and this is too seldom acknowledged, and the implications followed up.

Consider as an example the case of feedback that corrects the spelling of a word. If the reader thinks this is trivial and beneath the notice of a teacher in HE, then remember that a theory which cannot even cover this case is certainly inadequate for more important feedback. What, ideally, are the consequences for the learner of such feedback?
a) If the current document is to be resubmitted, then the word's spelling should be corrected in this document. And probably all other occurrences of the same word should also be checked (an inference from the specific case to the general case).

b) A correction to the student's internal spelling-generator needs to be made, so that they don't make the same error in future. I.e. this is about learning, rather than getting the work done but learning nothing. For example, in papers on feedback such as this one, a landmark paper is Black and William (1998) and you need to learn that this William is spelled with only one 'l': and many authors get it wrong. If you continue to write in this area, you need to learn this by heart.

c) A modification to the student's internal "proof-reader" or bug detector, so that they notice the error if it recurs in either their own work or someone else's. You can't be said to know a spelling if you can't correct it in a colleague's work; and your own as well. This is perceptual learning, rather than action learning. Even this simple case begins to show how learning from feedback requires inference, generalisation, and making multiple separate mental changes triggered by a single indication (perhaps one instance of the spelling being corrected). If the feedback had instead been "you cannot divide by zero" or "your essay introduction must both outline what is to come and locate your essay in the wider literature" then how long would it take a student to work through the implications, which impinge on the strategic level of how the whole task is tackled? How likely is it that this processing will be done in the time it takes to glance over the comments? What are the conditions under which this mental work, and so the learning from some feedback, will be done at all?

2.4 Implications of the new approach
At this point in the argument we may make three points about the proposition that feedback only has value when it leads to changes in the learner:

Unless learners are interested in using feedback, it isn't likely to be used. So we need to find out what they want to use feedback for. (See the next section.)

We should study cases of success, where feedback has led to learner actions, as opposed to studying feedback as a thing in itself, a deliverable independent of customers. (See the section after next.)

Converting feedback into learning (changes in knowledge) must involve active, constructive mental work by the learner. How can this be arranged and promoted? Where is it timetabled? (See the previous section.)

3 What are learners trying to change (regulate)?
The first consequence of thinking about what students might do with feedback is to consider their aims. (This has been discussed in Draper, 2009b.) Almost the whole of the literature on feedback presupposes that students' only use of feedback is to improve their technical knowledge and skill at the subject. Asking my students about feedback quickly disabused me of this.

When I asked them why they looked at the mark before the comments, and what they would do differently (if anything) if the mark had been much higher or lower, their replies essentially expressed that they were checking if they were on track for the level of marks they wanted, and if not they would increase or lower their effort accordingly. Just like most professionals, they have many goals to attain and limited time and attention. Therefore they must divert effort if necessary but otherwise economise on how they divide their time. This is required of them by the institution, which gives them multiple courses (and deadlines) at the same time. This is effort self-regulation, and what students most often use the mark for. We'll see an example of this later.

On another occasion when I asked a student what she thought of the feedback she had got in a previous year, she said (implying that she hadn't got useful feedback for this) that all she wanted to know was whether she was really a psychologist, or whether she should switch subjects. The student goal here is making career decisions within the university. The education system requires students to make such choices, and the major information they
have is the marks they get. This is another important student goal, imposed on them by the institution, and which they use feedback for, but which is generally ignored by the literature on feedback.

Another common student response is that they would like to know how to get a higher grade next time. This at least seems to be partly about technical knowledge: but note that it is actually not phrased as a question about understanding the subject, but about the criterion-based marking system. Teachers relatively seldom phrase their feedback in these terms, and so fail to match the goal the student is trying to use feedback to satisfy.

The above three correspond to common student responses, but some more sophisticated students use feedback to draw other inferences such as the validity of some markers compared to others, the degree of randomness in the process and so on. These other interpretations of feedback by students (and by staff e.g. when receiving peer review comments from journals) are discussed in Draper (2009b).

All three of the student goals mentioned here, and readily apparent from talking to them about how they do or would like to use feedback, are in fact imposed by the education system: they are not due to idiosyncratic or perverse aims. Yet most literature and practice fails to address these issues, and only seeks to increase skill and understanding of the topic: which is an aim typical of academics, but ignores actual student needs which in turn mainly derive from the situation imposed on them by the institution.

4 Cases of students successfully using feedback

The second implication of developing the new approach is that we should study success cases, where feedback to students actually is used. In fact some do exist, and they suggest ways forward.

I will briefly describe three such successes. Between them, they will cover feedback in both a calculation-based discipline, and an essay-based one. Furthermore they will illustrate three different student goals: regulation of effort (should I work harder or less hard on this subject?); regulation of understanding (what bits of this subject don't I understand properly?); and improving technical skill (how to write an essay; or how to do calculation problems in this discipline). Additionally they will illustrate how three different types of information may each alone support action by students: marks, comments, and the existence of a problem (with no information about how to act on it).

4.1 "3-D feedback": making marks comprehensible and usable

A colleague, Eric Yao, has more than doubled the pass rate on a first year physics course he teaches. It was around 40% historically and the first year he took it over, when he essentially repeated the existing course design. Three years later he achieved a 95% pass rate. Because multiple things were changed, we cannot be certain which were the important factors, but one interpretation is as follows. He required students once a fortnight to answer a set of MCQs from an online bank associated with the textbook, which were of course automatically marked. However he then emailed each student individually to comment on the mark they had got. This personal attention is likely in itself to have an important effect by embodying "teacher monitoring" (Draper, 2008): showing that each student and their work is individually noticed by the teacher. This is a significant amount of work, but feasible given that the setting and marking of the test questions required no teacher effort; and although the emails were individual, they were composed in a fairly routine pattern which could probably be rapidly generated.

Marks, like all measurements, are only meaningful in comparison to other already known measurements on the same scale: a contrast set. If I tell you a volume in minims, a weight in scruples or a temperature in degrees Réaumur it is only theoretically, not practically, informative. But what comparisons are useful for and actionable by students? Yao typically commented on a student's mark in two ways. One was in comparison to that student's last mark: giving the mark an "ipsative" reference point (about whether the student was improving or dropping off) see Hughes (2011). The other was in comparison to the marks the class as a whole had got on the same set of questions (a "normative" reference point): e.g.
this was a difficult set for the class, so your lower mark actually suggests you are doing as well as before.

A third such contrast set might also be very useful to many students: what might be called “predictive” reference points i.e. information about what their current mark suggests is most likely to be their eventual grade for the whole course or degree programme. If the assessment tasks haven't changed, then data from previous years make this easy for a teacher to calculate, complete with confidence limits of some kind e.g. "in previous years, half of those with this mark went on to an eventual B grade, while a quarter got As, and a quarter got lower overall grades". Students usually cannot calculate this, so raw grades cannot give them meaningful self-regulatory information. Grades for one assignment generally have no simple predictive power and therefore are not meaningfully "criterion based" from a student's viewpoint for reasons including: a) Coursework generally gets higher marks than exam work (Elton, 1998; Bridges et al., 2002); b) If approximately the same marking standards are applied over one or two years, then average student marks within a cohort will increase over that time as they develop i.e. become better learners, better students (which is after all a chief aim of education). c) Unless all assessments on a course are of identical type, then they will not measure the same thing, and marks for one will have an unknown (to students) relationship to overall marks. Snyder (1971) describes how different students align themselves with different measures (i.e. assignment types) on a given course, giving different long term outcomes; although he implies that perhaps this is a student choice. However surely teachers should provide students with information on the meaning (predictive value) of each measure.

I interviewed some students from Yao's course. One said he didn't like the 9am lectures and if he missed one he felt he had caught up by reading the slides etc. on line. But he noticed that the quiz marks he got didn't support this feeling and so he increased his effort to keep up attendance. This student finally achieved an A grade. However it looks as if his conscientiousness would not have been enough without the feedback from Yao's system of self-testing plus teacher interpretation of the results: he would not have realised his actual level of comprehension until it was too late to adjust.

Thus this case shows how regular marks without comments (i.e. without any technical "constructive" / directive content on the subject matter) can be useful feedback, which students do use formatively to self-regulate their performance: in this case, their effort. This appeared to make a dramatic difference to eventual overall outcomes on this course. However it also suggests that raw marks alone may not do it, without translating them against contrast sets that are informative in connection with students' self-regulatory goals. The learner goal here is the self-regulation of effort, and uses marks as the input, but needs interpretative help to translate marks into usable information for this goal.

4.2 Prompting the processing of feedback

A success I myself have had has been achieved by prompting my students to process my written feedback into plans for action. The context is weekly tutorial groups of 5-6 which (among other things) cover the supervision of a large piece of coursework (critical reviews). In these groups I also organise reciprocal peer critiquing, which students value, and which also sets up a good peer atmosphere for discussion. Nevertheless my own feedback to them seemed less successful even though I:

- Provided the written feedback in typed not hand-written form
- Gave both positive and negative comments
- Suggested specific changes that could have been made
- Used elective feedback i.e. had each student preface their submission with 1-3 questions which they specifically wanted feedback on
- Give them all the feedback for all of them so that they can learn vicariously as well as directly.
- Require them to collect the feedback from me, and read it on the spot.
- Promote discussion of the feedback with me and with each other.
I generally failed to get substantial discussion flowing, and if asked then even the best would say they didn’t see how these comments, although interesting, would help them with future assignments. It seemed that their memory of their original work had faded, and that even reading extensive feedback was not enough to make them think about it actively. Then, adopting a suggestion from David Nicol, I added a simple five minute exercise, getting each student to fill out a prompt form [www.psy.gla.ac.uk/~steve/rap/fprompt.html] essentially asking them to write out briefly how they would apply the feedback in future. Following that, discussion flowed freely when I went round the group asking what kind of thing they had written down; and all found either the discussion or the exercise or both valuable. If we may take written intentions as indicative of future actions, then this seems to have transformed whether my feedback was actually used.

This case suggests that written comments require significant mental processing; that this does not happen naturally even when the students definitely read the comments and have a carefully provided opportunity for both peer and tutor discussion of them; yet a short and simple exercise can change this. This concerns the learner goal of improving their technical skill or knowledge, using written, open-ended comments, but may need an extra prompt for the necessary conversion of comments into learning.

4.3 Catalytic assessment (questions, not answers)

Hunt (1982) showed that simply requiring learners to state a confidence level after answering each question on tests, increased overall learning speed. This shows that technical content is not necessary for feedback to benefit learning. Becoming aware of where knowledge needs to be improved can lead to self-remediation. In Hunt’s case it was self-evaluation. Other work has shown that other sources are effective in this way at prompting self-regulation of knowledge and understanding. Piaget argued that peer interaction was better than teacher interaction for this, because authoritative sources tend to be accepted without thought, while disagreements with peers cannot reasonably be either dismissed or accepted without thinking. Thus peer discussion is good both for identifying gaps in secure understanding, and in promoting the establishment of reasons for a belief i.e. deeper learning that simply remembering a fact. This line of argument is given in greater detail in Draper (2009a), and has led to impressive learning gains in HE contexts: see Crouch and Mazur (2001), Smith et al. (2009). The latter work also revolves around "brain teasers": carefully designed questions which elicit uncertainty by having two or more answers which seem plausible. Thus self-ratings of confidence, brain teasers, and peer discussion are three forms of "catalytic assessment" where the feedback amounts to showing the learner that they do not understand a specific topic properly, and they have a demonstrated ability to prompt self-remediation without further input from a teacher, and so to cause learning.

In this they are similar to learning mathematics by doing examples in a textbook and checking with the answer in the back of the book: again, all the learner is directly told is whether or not they need to do further work to master this topic. This is the essence of Mastery Learning (Bloom 1984; Block, 1971), where a key feature is regular diagnostic, formative testing, followed by learners focussing on the specific parts of the topic they have not yet mastered, and usually self-remediating from resources other than their teachers e.g. small groups, alternative textbooks. This is consistent with the work of Roediger and Karpicke (2006) showing that self-testing is a much more effective learning tool than simply re-reading material.

These are all similar in that the feedback in effect diagnoses what needs remedial work, but does not carry any of the remedial content itself. Overall the evidence suggests that we (learners) are not very good at estimating what we know or understand. However once our attention has been drawn to a problem in our understanding, we often actively remedy it. These are cases of the learner goal of self-regulation of understanding, but where stimuli such as formative tests are a key resource for triggering it.

4.4 Other success cases worth examining
Elective feedback, where learners ask for the feedback they want, is obviously very promising from this perspective. Bloxham and Campbell (2010) report trials of this approach, which they call "interactive cover sheets". It can easily be combined with other techniques, as it is in my own practice (although it is also interesting to consider only giving feedback that is asked for). My impression is that it is important for about one in three students, who are concerned about some aspect of their work which in fact they are doing well enough that it never draws a comment: but they would like an explicit discussion of the issue to put an end to uncertainty (and perhaps improve slightly).

The patchwork text design (Scroggins and Winter, 1999) is interesting in a number of ways. It is designed to serve an unusual learning goal: how to pick a personal topic for a large assignment, and to use feedback to help make this decision. It is thus the only design I'm aware of for providing feedback and scaffolding for "creativity". The design provides peer ipsative feedback, by having the same small group provide each other feedback each week over many small assignments. Thus this is a case of identifying a special learner need; of attempting to design a system of feedback to serve this need; and creating an original course design to provide that feedback, and so serve the learner goal.

Feedback calendars are tables, published to students on a course, that list not only the task submission deadlines for students, but the date and type of feedback which will be returned by staff to students. Their main value is to make the cycle of student work and returned feedback more visible to both students and staff. As mentioned above, there are indications that both staff and students tend not to have any real view of feedback as part of learning, and that receiving (and thinking about it) is an important learning activity. More details and examples may be found at www psy.qla.ac.uk/~steve/rap/fcal/.

5 Discussion
This paper explored the proposition that there is no point in producing feedback for a learner unless the learner uses it. Various elements of the points made are present in previous literature.
There are other papers that have pointed out that, if any benefit is to accrue, the learner must be not a passive recipient but active in often complex processing of feedback (e.g. Butler and Winne, 1995). There are other papers that analyse the overlooked complexity of what a learner's thought processes might be when they process feedback into new learning (e.g. Nicol, 2013). There are papers that point out that to understand the benefits of feedback we must take a more longitudinal view of the learning process: of repeated attempts and repeated feedback and feedforward (e.g. Molloy and Boud, 2013). Price at al. (2010) have begun the attempt to measure its effectiveness, but found it hard to do.

This paper set out to frame such papers as simply and clearly as possible, and to sharpen their emerging lessons, by replacing the presupposition that feedback must be necessary, and the further presupposition that feedback is only to be used to fulfill the teachers' rather than the learners' goals, with the question: how different would the world of feedback be, both theoretically and practically, if feedback only counted if the learner actually used it? While Gibbs and Simpson (2004) listed 10 conditions for assessment and feedback to promote learning, they put only as the last two that feedback must be received, attended to, and acted upon. This paper suggests reversing that and making them the first and only conditions; and in fact that it is the last (the learner acting on feedback) which is the only essential one from which others may, if necessary, be derived. This is a complete change of perspective, rather than of content.

5.1 Implications for research
Implications for research on feedback are:
• Researchers should measure and report what learning or other action results from feedback. With proper direct measures of the use and effect of various types of feedback, differences in the usage of the term "feedback" will become relatively unimportant, and it will matter less whether or not students are aware of the effect of the information sources which actually influence their learning.
• I have had several (very high achieving) students assert that feedback has never contributed to their learning. This is in direct contradiction to the assertions and assumptions of many researchers. Collecting data is essential to resolve this contradiction.
• It may be that those students took "feedback" to mean "written comments". If that is the explanation, then abandoning the production of written feedback by staff would be a large cost saving: finding out if this is sensible is clearly important.
• We should study what learners in fact use feedback (in a wider sense) for; and what they say they want to use it for.
• Studying success cases, as sketched above, seems a promising research priority to begin understanding the conditions under which feedback does increase learning.
• Some well known reviews, such as Black and William (1998) and Hattie and Timperley (2007), concluded that feedback was an important causal factor in learning. Perhaps these should be re-examined. For instance, it could be suggested that in all the studies they review, it wasn't just the presence or absence of feedback that was varied: other features of the teaching methods varied as well. How do we know that feedback was the cause of the variations in learning outcomes just because the reviewers and perhaps the original researchers used the term "feedback" to label a complex learning design used in an experiment?

Bloom's mastery learning, which according to Bloom (1984) produced an effect size of 1.0 (larger than the reviews typically report for "feedback"). However it is described by its practitioners not so much as consisting of formative testing, as of retraining students on how to interpret and act on the feedback: to interpret it not as a measure of their ability but as information about how to spend the timetabled self-remediation sessions, and then to demonstrate to themselves by re-testing that this interpretation is correct and the usual ability-measuring interpretation is wrong in their own case as well as in general. (See for example, Block, 1971.)

Hattie and Timperley (2007) make it clear that feedback quite often reduces learning: a powerful factor, but not always positive. Hattie (2009) shows a still more complex view of feedback, perhaps consistent with the simple framework presented in this paper. The general message is that to understand the evidence on feedback, we need to move far beyond the simple assumptions still prevalent.

5.2 Implications for practice
These might be expressed as follows. The topic could be defined as "feedback that is used by learners". Here the aspiration, and measure of success, is that feedback is only worthwhile to the extent that the learner uses it by modifying or actively reappraising something specific as a result.

Two design principles suggested by the cases discussed above are:
1) Ensure there is something which triggers the learner into processing any feedback into future actions.
2) Ensure marks are expressed on scales, or with anchor points, that are already understood by the learner, and are relevant to their purposes (their self-regulation of learning actions). Expect that several different scales or comparisons need to be provided for each mark.

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References

Bloom, B S (1984) The 2 sigma problem: The search for methods of group instruction as effective as one-to-one tutoring Educational researcher vol 13 no 6 pp 4-16
Crouch, C H and Mazur, E (2001), Peer Instruction: Ten years of experience and results, American Journal of Physics, 69, 970-977

Draper, S W (2009a) Catalytic assessment: understanding how MCQs and EVS can foster deep learning British Journal of Educational Technology vol 40 no 2 pp 285-293
Draper, S W (2009b) What are learners actually regulating when given feedback? British Journal of Educational Technology vol 40 no 2 pp 306-315
Gibbs, G and Simpson, C (2004) Conditions under which assessment supports students' learning Learning and teaching in higher education no 1 pp 3-31

Molloy,E and Boud,D (2013) Changing conceptions of feedback ch 2 in D Boud and E Molloy (eds) Feedback in higher and professional education: Understanding it and doing it well (London: Routledge)
Nicol,D (2013) Resituating feedback from the reactive to the proactive ch 3 in D Boud and E Molloy (eds) Feedback in higher and professional education: Understanding it and doing it well (London: Routledge)
Teaching Students how to Teach Themselves

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ABSTRACT:

Many disciplines face the problem of rapidly changing ideas of ‘cutting edge’ and a research led curriculum must, by its very nature, be changing constantly. This is particularly true in computing where there is a dual demand both to teach generic programming concepts and specific languages. This is like using French to teach students grammatical concepts and then expecting them to pick up German if that is what a future employer needs. In order to equip our students for such a fast moving workplace we need to teach them not just how to program in a particular programming language, but how to learn new programming languages. This case study describes how I rewrote the 2nd year undergraduate programming curriculum to face this challenge.

1 Introduction

I think as lecturers we all have our own teaching related worry that keeps us awake at night. My main worry used to be that I was teaching students skills that were currently on trend and relevant, but that may be less useful as time moves on. I am a lecturer in perhaps one of the fastest moving academic areas: Computing Science. Anyone who has observed the change from Windows XP to Windows 7 and onto Windows 8, knows exactly what I am describing. In fact, we even have a law to describe how quickly the world of computing hardware moves on. Moore's Law states that the number of transistors on a chip will double approximately every two years’.

This fast speed of change is not just true in computer software and hardware but also in the languages used to design both of these things. JAVA, the language we now teach all of our first year students in Dundee, roared in to the programming scene in 1997 (the year after I completed my first year at University). Since 1997 JAVA has gone through eight versions. Some of these versions were just small incremental changes, others changed the language fundamentally. The one thing I can be sure of when teaching students how to program is that the programming language they learn as an undergraduate is unlikely to be the language they use for the rest of their working life. So as their lecturer one thing I ask myself is: “how do I teach my students to program in a way that helps them to learn new programming languages for themselves after graduation”?

2 How to counter this problem?

For those readers who are not programmers you might wonder how difficult it is to move from one language to another. A good analogy I have found is to think about traveling to a parallel universe which mimics our own world except that everyone speaks Shakespearean English. Now imagine trying to communicate. It may be a rather difficult challenge. This gives a feel for how hard it can be for a programmer to move between programming languages. There are commonalities between modern English and that of a Shakespearean play, but there are also major differences.

Like all analogies this one does fall apart quite quickly in that the people in this world we are visiting might be kind to us and together we might muddle through. In contrast to this computers are obstinate beasts and sometime very frustrating to deal with. You have to get exactly the correct syntax and semantics in a programming language for a computer to 'understand' what you are trying to get it to do.

We have established how difficult it is to move from one programming language to another, next we have to find a way to help students make this leap independently. The good news is that just like in the English language there are common building blocks that can be found in most programming languages. You can think of this like opening a new box of Lego, there are very likely to be the standard 4 x 2 bricks that you would find in any set. If you know how to use these blocks to good effect from previous experience, than you can build something from these bricks. Likewise with learning a new programming language. If you can recognise the basic blocks that you have learnt in a previous language, then you can use these blocks to write your first programs. There are also likely to be features of the language that you have not encountered before, you can think of this as the slightly curved brick in your new Lego set that you are not sure at first how to incorporate in to your designs. These new features have to be studied in more depth so you can learn how to use them to their full potential.

When you have one programming language under your belt then learning another language should be a matter of:
Working out which building blocks you recognise from your previous experience.
Writing some code with these building blocks to make sure they work as you expect.
Looking to see what features the new language has that you are unfamiliar with and then spending some time learning when these new features may be useful to you.

So the question becomes how do we get students to recognise these three steps and learn to use them to teach themselves a new programming language?

3 Curriculum Change

This is where a change in the way I was teaching became necessary. Firstly, whilst learning a new language I wanted students to actively make comparisons between this language and the ones they already know. Secondly, I wanted the students to tease out for themselves why making these comparisons can aid them in learning a new language.

I teach a core 2nd year course which introduces all of our students to two new programming languages C and C++. All of our students have learned JAVA either as part of the first year of their degree or through an online course which any student has to complete for direct entry to 2nd year\(^2\). JAVA is a higher level language than C++ which in turn is higher level than C.

This course used to be taught just covering what students need to know about the 2 new languages they are learning. In line with my thinking on learning new languages I decided to change that to add a more reflective element. I changed week 1 into a week-long practical in JAVA. This allowed the students to refamiliarise themselves with JAVA after the long summer vacation.

In each of Weeks 2 to 10 we had two lectures at the beginning of the week where I introduced the students to various programming concepts, first in C++ then C. Then at the end of each week I introduced a 1 hour reflective tutorial where I asked the students to

\(^2\) [http://www.computing.dundee.ac.uk/acprojects/jol/](http://www.computing.dundee.ac.uk/acprojects/jol/)
reflect on what new concepts they had learnt that week and how (if at all) these concepts related to what they knew from studying previous programming languages. Each week ended with a 3 hour lab where students had the chance to put their new knowledge into practice. The course ended as it began with a week-long practical. I asked them to redo the practical they had done in week 1 in JAVA, but this time to complete the task using C. At the end of this week I asked them to write a longer reflection on the differences they had encountered between JAVA and C. You can see a full lecture by lecture breakdown in the Appendix.

4 Tutorial Analysis

I am very grateful to the second year students in 2012/13 for allowing me to share with you exerts from their tutorial write ups (written as a group blog) so that we can see the level of comparisons they managed to attain. They have all made their full blogs public so that you can read them if you wish. Links for these blogs are found in the appendix.

I apologise for the fact that by their nature these extracts are rather technical. I have tried to draw out the points of interest under each one to help any readers not familiar with JAVA, C and C++.

Exert 1: "We also started to cover object oriented programming in C++ this week. This was the first are where we saw major differences between the two languages, the whole group was surprised by how much less object orientated C++ was compared to Java and the fact that classes were so much less important. We were also introduced to destructors, after Java this was a major change, no more automatic garbage collection for us!"

This first exert was written fairly early in the course. At this point in the course students were keen to point out major differences, but less eager to look slightly deeper for similarities.

Exert 2: "The reason we found the concepts easy to understand is the similarities between C++ and Java. All the data types are the same, the operators use the same symbol, and if statements are implemented the same way. Although the comparison of values and changing data types is different we came to the conclusion that it is allot simpler than in Java."

Again this exert comes from quite early in the course. Again students are making quite wide sweeping statements. In particular, it would be interesting to know exactly why they believe it is a lot simpler in C++ than in JAVA.

These first two extracts illustrate quite a key point, which is that in general the students seemed to find this in depth reflective thinking on knowledge quite difficult. One of the reasons to spend so much time on this aspect is to give them time to learn how to really tease out the comparisons. Feedback was also given both orally and (briefly) in written form to try to help the students to consider the comparisons in more depth.

Exert 3: "Focusing on arrays and vectors now. Comparing arrays in C++ and Java we came to the conclusion that they are very similar, due to this we could understand easily how to implement it in C++. But as there are no vectors in Java, we compared arrays against vectors in C++. Although both have the same purpose, to hold multiple data of the same type, there are some big differences. The simplest of these (which has already caught me out during the latest lab but more on that next week) is the use of curly brackets. They are used for arrays in C++ and Java so the fact they are not used in vectors can be annoying. The other is vectors use built in methods, although it can take time to find the right one it does give you more control. The way that vectors beat arrays is the size you can set them to
be. Arrays have to be set to a size, while vectors can be increased and decreased at any time. So it will depend on the situation in which a program will be used on which structure you will use."

The above excerpt is taken from slightly later in the course. At this point students are beginning to undertake more in-depth analysis. This comparison contains both low level syntax information (the use of curley brackets) with high level information about the different uses.

As explained previously in the last week students are asked to write a longer blog post about the differences they encountered whilst undertaking the practical in C as oppose to JAVA.

Exert 4: "We think that the biggest difference between the two implementations is how they are both structured. In Java we used classes to define method and public and private specifications. We used three classes in Java that being a Menu, List and ListNode class which we then implemented methods in each three to produce the end product. In comparison to C we used something called a struct which is similar to a class but without method or public/private specifications. Another thing worth mentioning is that the Java code used a lot more lines of code compared to the C implementation. This could have been because of our not so good programming at the time or it could be that Java requires you to write more code for what you want to do compared to the C language. This follows on to my next point about how simple it seemed to be to complete the same functions in C that we had done in Java. Looking back at our code it really does seem like there is not much to it and when you look at the Java implementation you can become lost.

In Java and C the way both languages deal with memory is very different. In Java there is a garbage collector which enables automatic memory management, meaning that enough space is created so Java can execute the program. In the C language you have to use malloc(), which we used in our implementation to create enough space to store each node in the linked list. The difference is that C allows you to access memory directly but Java does not. Java's equivalent to malloc() is using the new keyword but it is not same as it does not allow you to directly access memory. We also used free(), which was used to delete the linked list by freeing up the memory for each node in C.

Another a big difference between the two programming languages is the use of the pointers in C whereas there are no pointers used in Java. The only problems we all have we point is the fact that it is easy to make a mistake, for example if you point to a memory location which is out of scope it will return an error. In our Java implementation we used objects instead of functions and this shows the difference between the two languages in the sense that C is more procedural-oriented while Java is object-oriented."

Exert 4 is a very well thought out and thorough comparison. Compared to the earlier exerts we can see that students really have learnt to give in depth comparisons. It is of particular note that the students are talking about a new feature they have encountered in C that is not in JAVA, namely pointers. It is interesting to see them beginning to explain this new feature and the issues that learning it has caused.

Exert 5: "Over our time on this course we have noticed many comparisons between Java and C:
Advantages of JAVA over C:
More suitable if you want to have organised code, as the code can have multiple classes and is object oriented.
You can catch errors in JAVA with try...catches and exceptions unlike in C. When it came to coding in C we found we couldn't catch input errors for all our menus in the C code which was an issue and that their is only a few standard error codes in C."
It is better for handling strings, in the way of comparisons and such. If we were implementing a program based mainly on using strings, we would definitely use JAVA for this. We found using char’s and char* very frustrating.

You never have to allocate memory in JAVA, this was one of our main issues with C and gave JAVA an advantage in this sense. C lacks algorithms which you can include inside your code and you often just have to write your own. Unlike JAVA where there is many libraries that can be used in JAVA for algorithms. If we were implementing a code that had to use many algorithms, we would probably use JAVA and therefore gave JAVA an advantages.

In JAVA you do not have to include certain libraries for data types to work for example you have to include a library for booleans and strings in C.

In JAVA you do not have to include iostream and namespace std like you do in C, for java to run.

Another comparison we have noticed throughout this course, is that in java you can overload function names where as in C you cannot.

Advantages of C over JAVA :

C is simpler language as it is much smaller and can often be quicker to write certain programs. In our case we definitely found it to be quicker for writing our data structures.

C is much easier for file handling over JAVA.

C is more efficient.”

Another group chose to do this as a set of advantages and disadvantages. This shows that they have managed not only to draw the comparisons, but then to move on to think about when it would be appropriate to use each of the languages.

5 Exam Analysis

The tutorial analysis gives us confidence that the students have managed to draw

Percentage of students who attempted each question in 2011

![Percentage of students who attempted each question in 2011](image)

comparisons, some of which are quite in-depth, between various programming languages over the length of the course. However, as I discussed in Section 2, we want the students not just to make these comparisons, but to use comparison to help them learn a new programming language. This is where the exam comes into play.

Question 1 of the exam in both 2011 and 2012 gave the students a small piece of JAVA code (which was different between the years). It then went on to ask the students to rewrite
this code in C and C++, they were then asked to write a detailed comparison of the three bits of code. The last part of the exam question asked students to explain how drawing detailed comparisons like this could aid in the learning of new programming languages.

The students have a choice of 4 exam questions out of a possible 6. In 2011, 95% of the class chose to answer question 1. This means that the comparison question was by far the most answered question in the exam. This was the first year a question of this type had been asked in the exam, so this shows that the students had confidence in this kind of comparison question, even when faced with a new fragment of code. It was also by far the best answered question in that year, with an average mark of 85%. This included in the majority of cases an in-depth discussion on why comparing languages could aid in learning new languages.

Again in 2012, the students had a choice of 4 exam questions from a possible 6. In this year the comparison question, question 1 again, was the second most answered question. I find
this rather surprising as the question followed the same format as the previous year so I
expected the majority of students to have practiced the format and hence chosen to answer
it. However, as in 2011 this question was very well answered.

Overall, I think these results and the earlier tutorial analysis shows that students did learn to
make detailed comparisons and to see how these comparisons could aid in learning new
languages. I was particularly gratified in the exam answers to see students making the
distinction between the basic building blocks and more program language specific concepts.

6 Conclusion

This case study shows one methodology for getting students to think both about learning a
new programming language and how they learn this new language. I believe that this
technique worked successfully with the two cohorts on which it was tested and the evidence
seems to back this assertion. However, we need to be cautious in gauging any general
results from such a small sample.

It is also worth noting that this whole methodology is based on how I personally learn new
programming languages and this may differ for other people, just as we all have our own
learning styles. At this juncture I could not find any other studies on how people teach this
useful skill. I am very interested in hearing from my colleagues how they tackle this issue.

Appendix

With thanks to all of the 2nd years who studied Multi-Paradigm Programming this year all of
whom agreed to mage their blogs public, you can read through the various blogs at:

http://ac21008group1.wordpress.com/
http://uodlightning.wordpress.com/
http://ac21008group6.wordpress.com/
http://ac21008group5.wordpress.com/
http://ac21008group7funandfrolics.blogspot.co.uk/
http://group3webblog.blogspot.co.uk/
http://technowizard21008.wordpress.com/
http://ac21008group11.blogspot.co.uk/
http://programproject.wordpress.com/
http://dundeeprogrammers.wordpress.com/
http://ac21008group4.wordpress.com/page/2/
http://ac21008group2.wordpress.com/
http://ac21008.wordpress.com/

On the next page a complete week-by-week breakdown of the entire curriculum can be found.
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<th>Lecture 1</th>
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<th>Lecture 3</th>
<th>Tutorial</th>
<th>Lab</th>
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<tbody>
<tr>
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<td>Week long JAVA practical, providing a recap of the previous year</td>
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<td>Reflection on this week's lectures</td>
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<td>2</td>
<td>Introduction to course</td>
<td>Getting started with C++</td>
<td>Variables, constants, cin &amp; loops in C++</td>
<td>Reflection on this week's lectures</td>
<td>Practical sheet 1</td>
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<td>3</td>
<td>Arithmetic, Equality, If &amp; Switching in C++</td>
<td>Function and Macros in C++</td>
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<td>4</td>
<td>String Handling in C++</td>
<td>Object Orientation in C++</td>
<td>Chained Hash Tables</td>
<td>Reflection on this week's lectures</td>
<td>Assignment 1</td>
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<td>Object Orientation in C++ continued</td>
<td>Files and Exceptions in C++</td>
<td>Open Addressed Hash Tables</td>
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<td>6</td>
<td>Templates in C++</td>
<td>Pointers and References in C++</td>
<td>An introduction to Complexity theory</td>
<td>Reflection on this week's lectures</td>
<td>Assignment 2</td>
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<td>Due end of week 7</td>
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<td>7</td>
<td>More Object Orientation in C++</td>
<td>The C++ Standard Library</td>
<td>Lists, Stacks and Queues</td>
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<td>Assignment 3</td>
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<td>9</td>
<td>Strings in C</td>
<td>Memory Allocation in C</td>
<td>AVL Trees</td>
<td>Reflection on this week's lectures</td>
<td>Assignment 3</td>
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<td>Due end of week 10</td>
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<tr>
<td>10</td>
<td>Structs in C</td>
<td>Useful things in the C Standard Library</td>
<td>Heaps and Graphs</td>
<td>Reflection on this week's lectures</td>
<td>Assignment 3</td>
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<td>Due end of week 10</td>
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<tr>
<td>11</td>
<td>Week long C practical, providing a chance to put into practice everything learned in this course</td>
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<td></td>
<td>Reflection on this week's lectures</td>
<td>Assignment 3</td>
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**Curriculum Innovation: Living and Working on the Web**

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University of Strathclyde  
Lisa Harris, Fiona Harvey and Graeme Earl  
University of Southampton

**ABSTRACT:** Curriculum innovation with the support of the web implies rethinking of forms of participation and engagement as part of both the learning and teaching experiences in wider contexts than that of the classroom. The web has entered our daily life for a great variety of reasons, but it is as yet far from being fully integrated into the way we learn in formal settings. Higher Education institutions have a duty to promote such innovations as part of their teaching and learning strategy if they wish to answer to the demands of the digital economy. None the least because Universities recruit students from a wide range of backgrounds who exhibit distinctive abilities, dispositions and attitudes towards the web as a tool for learning, networking and active presence. Thus it is of paramount importance to socialise all students in new ways of learning that will feed into modern ways of working and problem solving. This paper will present preliminary findings about the design and implementation of an innovative module at the University of Southampton in the UK that aims to address these issues and put students at an advantage in a digitally focused, highly competitive job market. The initial findings show that the student population participating in this study is diverse in the skills and approaches displayed with regard to digital forms of working and learning. At this stage, we can infer that this might be related to the way they have been socialised into learning, and also to the impact their own cultural capital may have had in influencing their digital habits.

**Introduction**

Curriculum innovation is necessary to meet the demands of a society in change where we are preparing students for jobs that in many cases do not yet exist. The digital economy requires much more than graduates who simply act as sponges for information. Interactive and real-time learning is vital in an environment that is increasingly global, where information is the most valuable asset, and effective collaboration is a tool which is increasingly valued by employers (Krause and Coates, 2008). And beyond employability, the broader issue of living in an increasingly digital society requires an appreciation of participation, social justice, personal safety, ethical behaviours and the management of identity and reputation. These developments have fostered a new culture of living, working and problem solving that needs to be matched by the way we teach. Being resourceful in terms of the continual development of practice is now a more important skill for learners and teachers to acquire than any static knowledge they might hold. Wesch (2009) talks about the difference between being "knowledgeable" and "knowledge-able", and putting this distinction into practice seems to be the obvious yet challenging step in the preparation of the next generation of knowledge workers.

This paper evaluates the development and delivery of an innovative module at the University of Southampton during the 2012-13 academic year within a Curriculum Innovation (CI) programme. Currently there are four new CI modules on offer to students at the University with an interdisciplinary digital theme. These modules have been developed by a group of academics who belong to the University's Digital Economy Research Group. A key focus of this group over the past two years has been to encourage the application of technology-rich education tied to leading edge digital economy research. The development process has been informed by extensive interaction with industry to ensure employability, and input from our group of Student Digital Champions. The module we focus on here provides an interdisciplinary perspective to students on the fundamental ways in which the digital world is changing how we live, interact and learn.
Fundamentally, it is about building the capacity to respond positively and flexibly to change through the critical evaluation and agile adoption of new practices. The module is both innovative in its content and also in its format - students work collaboratively and largely online by answering set questions, commenting on the answers provided by their colleagues, mentoring each other and summarising their key learning points from each week in a reflective diary. Such "life-wide" learning (Jackson, 2010; 2011) recognises that life experience and extracurricular activities can differentiate students from others who have completed similar degrees. Students were encouraged to participate in university life outside the classroom, reflect on what they contribute to these communities, and what they have learned as a result of their participation. They were also invited to present their feedback on their learning experience with this module to a major Digital Literacy conference that took place at the university in the Spring of 2013.

By facilitating this blended approach for students from across the whole university, what lessons can we learn about a) the value to students of the skills acquired and b) the implications for curriculum development within the University more generally? Our data was obtained by incorporating relevant questions into the students' reflective accounts of their learning and from focus group discussions with teaching staff. Content analysis of this and the students' various contributions to the module was carried out and some preliminary findings are presented in the sections below.

**Life wide learning**

Life wide learning regards learning as an unpredictable life long journey by putting an emphasis on the serendipity of experiences as meaningful learning opportunities. Learning is seen as non sequential, context dependent, and drawing on learners' multiple experiences. Hence, learning should also encompass learners' life experiences as a useful resource. The growing emphasis of learning technology in curriculum design has come to question how, when and where learning is facilitated. Hence, it is important to understand the evolution of technology through the years and the impact it has had on wider society so we can best exploit it for contemporary teaching and learning practices.

In the 90s educational technology was celebrated with taglines such as "anywhere, anytime". It promised to revolutionise formal education. The revolution stretched as far as the "technical fix" (Gouseti, 2010) allowed, with access to information being the main feature of the new technological infrastructure in place. It resulted in a mere transference of practices from an analogue to a digital system that to some extent is still present in formal education.

In the subsequent decades, however, the Web progressed to become a space of participation, presenting features beyond the technological ability of retrieving information. The web is now also an infrastructure known for the socialisation of multiple practices available to a large percentage of society. This global phenomenon has been appropriated by different sectors and layers of society, resulting in the change of practices through new forms of co-constructing, sharing, and communicating knowledge in distributed spaces.

Businesses have started to enhance their online presence with interactive platforms (Kaplan and Hanelein, 2010). Video and audio channels have promoted a culture of remixing (Lessig, 2009) and digital presence thus encouraging digital forms of creativity. Employers are assessing the digital footprints of their future employees and individuals are starting to develop their own personal branding to promote themselves, network and make their services more visible (Harris and Rae, 2011).

In short, this Do It Yourself (DIY) approach to information and communication has informed new ways of working and has influenced society accordingly. People shop, study, bank and carry out business online. The web is now integrated in people's lives, and ingrained in their social and professional habits. It is also argued that it should be part of the formal education offer (Greenhow et al, 2009; Juwah, 2013) in order to grant authenticity to higher education learning.
The habits developed on the social web present a new level of complexity to education and the institutions who aim to cater for the requirements and expectations of a changing society. There is a pressing need to prepare learners with skills and competences that will enable them to face up to a future not yet known (Pence, 2007; Qualman, 2012). Thus, there is a need to promote curriculum innovation to include life wide learning. Today, the web has become a meaningful resource for information seeking, and also for the creation and crowdsourcing of information. The web has become a pool of current knowledge featuring different formats: text (websites, blogs, journal articles, etc.), audio (podcasts) and videos (tutorials, reviews, interviews, lectures, etc.), pictures (sharing of artefacts, etc.), and other knowledge sources (academic and popular opinion; live and recorded information; synchronous and asynchronous communication). In implementing life wide learning, institutions need to rethink their curricula to include and privilege these unforeseen aspects of learning. This implies changes in practice for all parties involved:

Curriculum designers: shifting from designing content to engineering contexts for learning (Dias de Figueirêdo and Afonso, 2006)

Educators: Shifting from teaching content to "animate" the learning experience with learning challenges (Bennett et al, 2012; Conole, 2012)

Learners: shifting from processing content to "creating" their own learning experiences

Learning in real contexts and authentic settings

A life wide learning curriculum highlights the authenticity of learning experiences. It places learning in the contemporary social, cultural, and economic reality. It therefore requires the development of literacies that are situated in those contexts.

Web and digital literacies are core to curriculum innovation because of the needs of the digital economy. As Wesch (2009) reminds us, curriculum innovation in the digital age needs to foster the "knowledge-ability" of learners more than it should seek to create "knowledgeable" individuals. This translates into instigating the autonomy of learners and supporting them in mapping out their own learning journeys above and beyond any formal teaching and learning activity. And, in return, it also means to foster the development of situated skills that will help current learners to thrive in the unexpected contexts of the present and future digital world. This kind of curriculum innovation becomes even a bigger imperative when, according to the "Go-on" report, 16 million individuals in the UK alone still lack basic online skills (2012).

Life wide learning and digital and web literacies walk hand in hand in providing environments for authentic learning. Both focus on the "personal life course of an individual through which they learn" (Jackson, n/d, p.4). Learning on the web and learning how to be "digitally savvy" is a personalised learning experience. Nonetheless, it is not an isolated one. It is rather a shared venture. And curriculum design must take that into account and cater for situated learner and the skills that are relevant to help learners thrive in a changing society.

Belshaw (2013) points out eight essential elements of digital literacies the 21st century learner should master: Cultural; Cognitive; Constructive; Communicative; Confident; Creative; Critical and Civic. Belshaw et al (2013) have also gone on to extend the concept of digital literacies to include the competences required to perform effectively on the web. The authors identified four areas in which those skills can be developed and applied: 1) Exploring; 2) creating; 3) Connecting; and 4) protecting. Literacy is a social construction (Li, 2001); a product of social practices (Barton et al, 1999) that is "historically situated" (ibid, p8). For centuries, core literacies have been associated with reading and writing. Together with numeracy they were regarded as essential working skills. In the current age, however, digital and web literacies have not only come to join this group of important skills, they are also becoming essential life skills. Literacy needs change with the development of new social practices and conventions. Hence, it is important not to
disregard the socio-cultural dimension in which the development of literacies is placed (Baynham, 1995).

In summary, although the web has become pervasive especially in the lives of knowledge workers, it is still often used in a rather rudimentary way, with information seeking being one of the main activities performed online for professional purposes. If Higher Education institutions are to prepare the workers of the futures with adequate skills and attitudes, they will need to integrate the web in their curriculum and socialise their students into new forms of learning via online networking, online participation and creation of knowledge in collaborative environments. The knowledge worker of the 21st century is “digitally savvy” and has a reputable digital footprint that connects them to meaningful sources of static (resources) and interactive knowledge (specialised networks).

Curriculum innovation at the University of Southampton

Curriculum Innovation is preparing graduates for their future by offering new choices and options on many study programmes. The next generation of graduates will face future challenges that we haven’t even imagined and take jobs that may not even exist yet. The increasing pace of change is such that they will need to develop new knowledge and skills throughout their working life.

An innovative approach to the curriculum is allowing the University to develop opportunities for students to exercise choice and personalise their learning, if they wish to do so. In February 2012 a set of new, interdisciplinary modules was introduced and this list was expanded at the start of 2013. One of the new modules - and the subject of this paper - is titled Living and Working on the Web (#UOSM2008)

As stated on the Curriculum Innovation website, key to the University's future success as an institution will be:

- Providing a world-class student experience that attracts the most talented students and staff
- Providing choice and flexibility which allows students to personalise their learning and maximise the value they get from their study at university
- Recognising the importance of employability to students and prospective students and doing everything we can to enhance this aspect of their education
- Continuing to grow research excellence across the disciplines and using this as a basis to develop new and innovative education programmes

The benefits of reforming the curriculum include:

- Students who are better prepared to excel in employment and enterprise
- Being able to clearly articulate the distinctive University of Southampton educational experience to current and future students
- Enabling the multi and interdisciplinary research ethos to be embedded into our education offering

Changes to the way their education is funded will only increase the trend for students to become more demanding in terms of their expectations of quality. Whilst there will always be students who will want to focus exclusively on their chosen degree subject, others will increasingly expect more choice in what and how they study. This could include choosing modules from outside of their discipline, modules which give them an interdisciplinary perspective or studying part-time.

Living and working on the web: module summary

After completion of this module, students should:
- be proactive, confident and flexible adopters of a range of web and mobile technologies for personal, academic and professional use
use appropriate web and mobile technologies effectively to search for, store and curate relevant information
be equipped to reflect upon and critically evaluate the information obtained
engage creatively and productively in relevant online communities
be familiar with the use of collaboration tools to facilitate networking, group work and project management
be aware of the challenges inherent in ensuring online privacy and security
have developed appropriate communication skills for peer and tutor interaction within an 'always on' environment

The module combines online interaction, self-study and face to face support workshops. The self-study materials introduce the full range of topics that need to be covered, and then additional details emerge through on-going discussion and collaboration with colleagues and tutors. One of the key features of a contemporary learning programme such as this is the high level of interaction where students are required to share their own insights and experiences for the benefit of the group as a whole. In addition, they are assessed on each topic as the module progresses while at the same time building their own professional online portfolio. In short, active learning is required throughout.
1. Online interactions (5 topics, each lasting 14 days)
For each topic students receive the following:
Text-based topic summaries focused on the themes of each week
Directions for the completion of assignments
Links to web-based materials offering additional insights
Supplementary reading

These materials include presentations, videos and audio clips, as well as short articles and academic papers. It is important to complete these tasks because the assessed online interactions directly depend on it. This is the process students follow for each of the five module topics:
Read the preparatory materials and respond to the set question by the deadline (7 days ahead). This task represents an opportunity to demonstrate the ability to research diverse sources, share personal experiences, and synthesise the knowledge collated into a clearly written and thought provoking posting that shows understanding of the material and its application to specific cases. In addition, the tutor will choose to comment on some of the postings in order to moderate the discussion. It is important to emphasise that the focus is on student contributions that share their opinions, experiences and additional resources. Knowledge is constructed and expanded as a result of the interactions with the taught materials, tutor and other class participants.
AFTER their first posting, students read the posts of fellow students, and respond to AT LEAST TWO of them in a meaningful and critical manner by a set deadline (3 days later). The author may then respond to contributions to their post, as might other students and/or the tutor, so that a discussion thread develops. Students should contribute an original viewpoint, include new information, lead a discussion or point to new resources, not simply react to what others have said.
At the end of each topic (4 days later) students post a reflective summary of their learning from the materials they have consumed, the work of their colleagues and the interactions on the discussion board. By this point the whole class should have collaboratively discussed the materials, shared their experience and their insights, and improved their collective understanding of the subject.
The next topic then begins straight away, and students get individual feedback on their work within 2 days of completing the previous topic, so the comments can be factored into the approach they take next time.

Module Assessment Summary
Online interactions (50% of module assessment)

<table>
<thead>
<tr>
<th>Set Question</th>
<th>Assessment</th>
<th>Answer set question on discussion board (by end of day 7)</th>
<th>2 x comments on the work of other students (by end of day 10)</th>
<th>Reflective summary (by end of day 14)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Topic 1: Explain the concept of digital &quot;visitors&quot; and &quot;residents&quot; drawing upon your own online experiences to date</td>
<td>Formative</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Topic 2: Discuss the arguments for and against having more than one online identity.</td>
<td>Summative</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Topic 3: Discuss the ways in which an authentic online professional profile can be developed.</td>
<td>Summative</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Topic 4: Evaluate the opportunities and threats raised by the use of social media to support live events.</td>
<td>Summative</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Topic 5: Explain the advantages and disadvantages to a content producer of making their materials freely available online</td>
<td>Summative</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Breakdown of marks as % of total module assessment</td>
<td></td>
<td>20%</td>
<td>10%</td>
<td>20%</td>
</tr>
</tbody>
</table>

Development of the student's own digital portfolio (50% of overall assessment)
Provide the evidence base for the development of your own online presence during this module, through links to your blog, twitter account, LinkedIn profile and other relevant online content. Compare your position at the end of the module with your level and extent of activity on these channels before the module began.
Reflect upon what you have learned during the module about living and working online and how you will take this forward into the future (500 words)

Findings and discussion: what have we learnt so far

The module tutor perspective
Due to administrative and promotional difficulties, we struggled to recruit students to the module for its first running in January 2013. We set a cap of 20 students and actually ended up with 17. Two of these were members of staff who wanted to study on an informal basis, and one was a student whose programme did not permit her to study the module formally, but who wanted to take it as an extra. Of the remaining 14 students who signed up, what was most striking was the wide range of attitudes and abilities. At one end of the scale, we had students who were already proficient online networkers and experienced in applying their social media skills to the development of their online professional profiles. Some already had digital marketing jobs lined up for after graduation, or they were already working in the industry on a part time basis. At the other end of the scale, we had two students who found it difficult to grasp the basic principles of professional social media use throughout the module. In between these extremes, we had a core group of students from a range of disciplinary backgrounds who started off knowing very little about the subject, but they recognised its importance and wanted to take the module to improve their skills.
As module tutors, the first challenge we encountered was in getting the students used to a study environment that was very different from their learning experiences in other modules. For example, some students commented that they were not normally allowed to use phones
or laptops in class, nor were they used to seeing, reading and feeding back on the work of other students. The online study environment allowed them great flexibility over when they actually worked on the module, and this was greatly appreciated by students who were combining work and study. It posed difficulties, however, for students with poor time management skills who were used to the routine of turning up for weekly lectures and then cramming for an end of module assessment such as an essay and/or exam. Without this structure, they struggled to meet deadlines and were uncomfortable that the on-going monitoring and assessment gave them nowhere to hide and forced them to participate (or made it obvious that they did not) throughout the module.

Secondly, the amount of work required of the tutors in reading, monitoring and responding to online discussions should not be underestimated. Obviously there are flexibility of timing advantages for the tutor too, but the approach far exceeds the level of commitment required in the traditional lecture model where you rarely get to see what students are capable of (in both a positive and negative sense) until after the module is completed and the assessments submitted. A lot of tutor time was also spent in sending out reminders of deadlines and chasing up late work.

It was very rewarding that the best students went far beyond the call of duty in terms of promoting the module to others, sharing useful resources and encouraging less committed students to participate. A group of 4 students produced a video about their experiences on the module which they played to very impressed delegates at our recent Digital Literacies Conference.

This activity has also done wonders for the profile of this group of students within their own departments: I was amazed when on Thursday morning; the day after the Digital Literacy Conference, my Spanish Language teacher greeted me when I walked into class with ‘nice video’²⁴ Anna’. Although he had not been at the event himself, he had seen the video that we had shown at the conference as it had been retweeted by the @ModernLanguages twitter account. I doubt that if the social media stream on #sotonmooc wasn’t there he would have even known there was a Digital Literacy Conference that day!

The nature of this module and its requirements means that we have plenty of feedback from the engaged students, but those who did not engage are by definition almost silent. On the positive side, some interesting comments were made about the module format and structure, and its impact on employability: The reflective summary allows you to think about where you’ve come from and where you are now and how useful it might be for you in the future - this is something you don’t get on other modules

One of our students was able directly to apply knowledge gained from the module more quickly than she expected, as explained on her blog: Only a month ago I spent my Monday morning at university attending a workshop on creating and editing video on smartphones with David Willox and Simon Morice of icmReporting. After learning about conducting video interviews, we exchanged contact details and a month later I found myself working as a news reporter at Digital Media Europe 2013, an international conference on digital trends within the media industry. Given that I had absolutely no experience in reporting, I was somewhat surprised when I was sent off to interview business leaders with a smartphone, a microphone and lights on the first morning of the conference. However, their simple four question approach and their refreshing confidence in a student’s maturity and capabilities enabled me to conduct 11 video interviews over the three days, with each one produced, edited and uploaded in about 30 minutes

So for motivated active learners, the benefits are obvious. However, students who expected a module with no exam and limited attendance requirements to be easy were rather shocked to find their work scrutinised or their lack of participation highlighted from an early stage of the module. The requirement to engage in discussions and build a digital profile over a 4 month period meant that anyone expecting to operate in passive mode and then pull something together at the last minute would find themselves in an increasingly

²⁴ Student feedback Student video: http://www.youtube.com/watch?v=nDvc3Vv5byQ&feature=youtu.be
uncomfortable position as the module progressed. We also hoped it was obvious that the
general title of "curriculum innovation" and the specific one of "living and working on the
web" implied that the content and format would be rather different from the norm. Careful
reading of the detailed study guide before starting the module might have been useful for the
students who considered themselves (for a variety of interesting and/ or unfortunate
reasons) to be unsuited to this approach. This may also hint at the cultural expectations of
students who have been socialised into traditional forms of teaching and learning and who
thrive in such conventional contexts. By comparison, the web, as a tool supporting life wide
learning contexts calls for new teaching approaches that places students in command of
their learning. There is a shift in practices that should translate into new teaching and
learning habits across disciplines and areas of knowledge.

In terms of the broader role of digital literacy in a university education, there were some
interesting reflections from the students on this bigger picture: Formal institutions (such as
universities) are poorly placed to deal well with the social, cultural and economic changes
that derive from the continuing use of these technologies. It's true and we've all suffered at
the hands of a clunky SUSSED [University web portal], an antiquated Blackboard and a
reluctance to embrace the academic and collaborative value of social media. With fees on
the rise, universities must be mobile (excuse the pun) with regard to their digital
development.

Another student then replied to this: Your attention to the potential trouble universities are
facing in light of students' rapid digitalisation is of particular poignancy given our own
position as students preparing to emerge into employment so I am glad you mentioned it.
Over our 4 years of study, I feel we can definitely relate to the "technophobic faculty" the
Small Steps Across the Chasm article refers to, struggling not only with SUSSED and
Blackboard but also feeling completely out of touch with digital residency which could boast
invaluable advantages for future employment. With the job market as it currently stands, I
am thankful that we have been able to take part in UOSM2008, although it is unfortunate it
has taken until our 4th and final year of study and feel the University should make these
opportunities available earlier. I strongly agree with your closing statement that if students
are going to start paying £9000, they should expect more for their money.

Next steps and conclusions

Edudemic (2013) lists a number of characteristics of successful online students which are
summarised below:

Being highly motivated to learn. In on ground classrooms, learning can be passive, while in
online programmes, learning is active and the learner must be engaged at all times.

Having strong time management skills and self-discipline. The normal structure of getting to
class on time is gone, requiring each student to set his or her own schedules to get the work
done.

Being highly communicative. Communication and collaboration are critical to the student’s
success.

Demonstrating strong critical thinking skills and basic technology skills.

We had a number of students who fitted the above description and consequently did very
well, requiring only a light steer and plenty of encouragement from their tutors. It was
perfectly possible for others to give a superficial impression of engaging with the module
while actually "piggy backing" off the work of others. However, it was very clear to the tutor
simply by observing the tweets and blogposts of these individuals whether they were actually
"walking the talk" or not. Additionally, all the discussion board posts were time-stamped so it
was easy for everyone to see if a specific idea posted by one student at 10.36pm also
emerged at 11.01pm and 11.23pm on the same day in the work of two other students (actual
example).

But is it too much for us to expect students to learn social media tools from scratch AND how
best to use them to build professional profiles, all within one module? We cannot assume
that incoming students will have prior skills. Several of our students had not blogged or tweeted before at all. This meant that the level of skills was very variable to start with, and we made use of the most experienced students to help with mentoring of their less confident colleagues. Next time we plan to formalise this process by introducing group work bringing together students of mixed ability levels into support networks. This is proving successful on another CI module with which we are involved that focuses on the Digital Humanities. Of the students who started out with little knowledge, some worked hard and quickly made progress, others struggled throughout with the whole approach which was very different to the model of learning that they were familiar with. As discussed earlier in the paper, we believe that active life wide learning should ideally be built in throughout the educational programme so that students will experience less of a culture shock and more tolerance for change and/or ambiguity.

There are a number of opportunities for aspects of the module that worked well to be subsequently fed through into standard University procedures. For example, using Google docs was ideal for giving prompt and on-going feedback to students, rather than the standard manual processing of assignments at the end of a module. Offering modules through a curriculum innovation programme to students from across the whole university encourages structural change and flexibility, for example by enforcing the standardisation of modules around 15 credit points across all faculties. And of course by showcasing the importance of digital literacy through this module, we are actually saying that the principles should be applied much more broadly. In turn it is a stepping stone towards much more fundamental change in teaching and learning approaches for the digital age. This paper has described the implementation of a new module at the University of Southampton, highlighting its innovative features and approaches to teaching and learning. The work presented aimed to highlight the need to make HE programmes relevant to the current job market that relies heavily on a digital economy. The preliminary research findings have indicated that there is a huge discrepancy amongst students' expectations and engagement in a module that aims to mirror the practices carried out in "the real world". Further analysis is needed to better understand this phenomenon. Using White and Cornu's (2011) interpretation of Digital Residents versus Digital Visitors might help us to understand better the social reality captured by this research. Such an approach presents a consciously binary interpretation of a much more complex reality. Hence, it might also be worth re-analysing this research though Bourdieu's key concepts and use social and cultural forms of capital (1985) as a useful research lens to understand the attitudes and dispositions of this group of students who display such varied approaches to the use of the web.

References
Jackson, N., n.d. From work integrated to life wide learning doc free ebook download.
Innovation in Large Introductory Classes

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Queen's University - Kingston, Canada

ABSTRACT: Large introductory courses present special challenges to universities. Traditionally the preferred mode of instruction for these courses is the lecture, which presents itself as an efficient way to teach large numbers of students. However, research shows that students often have low levels of engagement in lectures and do not learn effectively. The Course Redesign Project is a university funded multi-year initiative in the Faculty of Arts and Science, designed to enhance student engagement and improve student learning in large, introductory courses. Focusing on the blended model, courses involved in this project represent a range of disciplines, including the social sciences, arts, humanities and sciences. Longitudinal data is being gathered to evaluate the effectiveness of the course redesign on student engagement, approaches to learning and knowledge retention. This paper reports on the curriculum innovations and impact on student engagement for three courses that were redesigned in the 2011/12 academic year.

1 Background

Large introductory courses present special challenges to universities. Traditionally the preferred mode of instruction for these courses is the lecture, which presents itself as an efficient way to teach large numbers of students. However, research shows that lecture formats where students are passive auditors result in fluctuating levels of student attention and low levels of engagement (Middendorf and Kalish 1996). Passive learning is not effective since it does not enable conceptual understanding and therefore does not lead to long-term knowledge retention (Michael 2006; Wirth 2007; Minhas et al 2012).

Over the past decade institutions have started to redesign courses to address these challenges (Twigg 2000). Drawing on research related to how students learn and innovative approaches to instruction (Ambrose 2010; Mayer 2008), redesigned courses blend educational technology with improved in-class instructional approaches to enhance the quality of student learning and to improve student success. Vaughan (2007) identified a number of benefits to redesigning courses using a blended learning approach. Since a blended learning approach involves the integration of face-to-face and online learning activities within a course, this approach promotes increased time flexibility for both students and faculty. Furthermore, other benefits of a blended approach to learning include increased student engagement in learning and enhanced student-faculty interaction (Vaughan 2007). By moving the transmission of information online, classroom time can be focused on active learning, where concepts are applied and knowledge is integrated through group work and problem solving.

Carle et al (2009) conducted a small-scale study to examine whether adopting a blended learning approach improved student engagement and academic achievement. Using 30 items from the Class-Level Survey of Student Engagement (CLASSE) to measure student engagement and grades to measure academic achievement, independent sample T-tests were used to examine changes in engagement and achievement across two groups: the control group consisted of students in a section that used a traditional lecture model of teaching and students in a section that adopted a blended approach were the treatment group. Across the 30 CLASSE items, students in the blended learning section indicated greater levels of engagement than students in the traditional section. Furthermore, students in the blended learning section also demonstrated greater and statistically significant average achievement scores in comparison to those in the traditional section (Carle et al 2009).
The following year, Means et al (2010) published a report that included a meta-analysis conducted to compare the effectiveness of online, face-to-face (traditional lecture) and blended learning approaches. The meta-analysis included empirical studies from 1996 to 2008. Forty-five studies were included in the meta-analysis and provided 50 independent effect sizes (27 effect sizes compared online versus face-to-face learning while 23 effect sizes compared blended versus face-to-face learning). Out of this subset of 45 studies, learners in 40 of these studies included undergraduates from across a range of disciplines including languages, science, and social science. In the case of the 23 studies that compared blended versus traditional face-to-face approaches, results of the meta-analysis found that, on average, learning outcomes for students taught using a blended approach were significantly (p < .001) better than those of students taught using a traditional face-to-face approach (Means et al 2010).

While the studies by Carle et al (2009) and Means et al (2010) focused on examining the effectiveness of instructor-led course redesign initiatives, Vaughan (2010) presents an institutional course redesign initiative, the Inquiry Through Blended Learning (ITBL) program, created to support faculty engaged in blended learning. The goal of the ITBL program is to 'shift teaching and learning from an essentially passive lecture approach to an engaged and collaborative one' (Vaughan 2010, p 60). Evaluation of the program includes using a combination of faculty interviews and student surveys. The student survey consists of items from three of the five National Survey of Student Engagement (NSSE) survey benchmarks: active and collaborative learning, student interactions with faculty members, and level of academic challenge. The items selected from the NSSE are similar to those found in the CLASSE. To highlight the importance of recognizing course redesign for blended learning as an on-going process, Vaughan (2010) describes how an instructor teaching a third year course used results from student surveys to make changes to their course. Changes made to the course based on results from student surveys resulted in not only significant improvements in aspects of student engagement (e.g. active and collaborative learning) but also showed increased success and retention rates as evidenced through student grade distributions.

2 Context

Similar to the ITBL program, the Course Redesign Project is a university funded multi-year initiative in the Faculty of Arts and Science, designed to enhance student engagement and to improve student learning in large, introductory courses. Focusing on the blended model, which involves the purposeful integration of face-to-face and online learning activities (Garrison and Vaughn 2008); the courses involved in the project represent a range of disciplines, including the sciences, social sciences, arts and humanities. Courses are selected through a proposal submission process and require a commitment not only from a faculty member (or team), but also from the department. Selected proposals receive funding and consulting resources related to instructional design and instructional technology, and receive integrated support from the Faculty’s Associate Dean (Teaching and Learning). The potential impact of the course redesign project is high: most of the courses serve as gateways to upper-year concentrations, with individual course enrolments ranging from 300 to 1,800 students.

Longitudinal data are being gathered to evaluate the effectiveness of the course transformations on student engagement, approach to learning and knowledge retention. As part of the longitudinal data collection, baseline evaluations are completed prior to the redesign, and data collection will continue for three years thereafter. Ethics approval received for this project also allows access to demographic and student performance data for further analysis. To highlight the work done thus far in the Course Redesign Project, the remainder of this paper reports on the curriculum innovations and impact on student
engagement for three participating courses that were redesigned in the 2011/12 academic year.

3 Curriculum innovations

In the first phase introductory courses in Classics, Gender Studies and Sociology were redesigned in 2011/12 and were offered for the first time as blended models in 2012/13 (representing 1,730 total enrolments). Although the specific design of each course is unique, all blended courses employ online resources to assist with the transmission of concepts and information, and focus classroom time on applying, integrating and synthesizing knowledge through small group activities. To illustrate the variety of curriculum innovations adopted by instructors, details for the three courses redesigned in 2011/12 are described below.

3.1 Classics

*Ancient Humour* is a 3.0-unit, one-term course in the Department of Classics. It has a prerequisite of Year 2 standing and serves as an option course for Classics concentrators and an elective course for students in other concentrations. The traditional course, which attracted an enrolment of 410 students, required each student to attend two 1.5-hour lectures per week in a single large section taught by the instructor of the course.

In the 2012/13 academic year, the course instructor began the initial phase of converting the course to a blended learning format that included integrating traditional face-to-face instruction with electronic (Web-based) approaches. In addition to completing work online and through readings, the blended course required each student to attend one hour-long, facilitated active-learning lab per week. There were also two hour-long lectures, which took place in the first week and the last week of the term. Group learning labs were facilitated by graduate teaching assistants and attended by the instructor on a rotating basis. The instructor delivered the 2 bookend lectures. The group learning labs had 40 students working in groups of 8, while all registered students (560) attended the 2 lectures in a single large section.

3.2 Gender Studies

*Women, Gender, Difference* is a 3.0-unit, one-term course in the Department of Gender Studies. It serves as the first-year gateway course for concentrations in Gender Studies, and as an elective course for students in other concentrations. The traditional course required each student to attend one 2-hour lecture per week in a single large section of 275 students, taught by the instructor of the course. Each week, each student also attended one one-hour teaching assistant-led tutorial. These tutorials were divided into several sections consisting of 25 students each.

In the 2012/13 academic year, the course instructor began the initial phase of converting the course to a blended learning format. In addition to completing work online and through readings, the blended course required each student to attend one hour-long lecture per week as well as one hour-long, facilitated active-learning lab per week. Lectures were delivered by the instructor in a single large section of 300 students, while group learning labs were facilitated by graduate teaching assistants. Group learning labs consisted of 25 students and within these labs students worked in groups of 5.

3.3 Sociology

*Introduction to Sociology* is a 6.0-unit, two-term course in the Department of Sociology. It acts as the first-year gateway course for concentrations in Sociology, and as an elective for students in other concentrations. The traditional course, taught by a single instructor,
required each student to attend two one-hour lectures per week in one of two large sections (430 students or 380 students), as well as to participate in a one-hour tutorial of 27 students led by a teaching assistant.

In the 2012/2013 academic year, the course instructor began the initial phase of converting the course to a blended learning format. In addition to completing work online and through readings, the blended course required each student to attend a weekly one-hour interactive lecture led by the instructor (in six sections of 145 students), as well as a one-hour teaching assistant-led group learning lab (sections of 22 students), where students worked on activities in groups of 5.

4 Impact on student engagement

The Course Redesign Project is designed to enhance student engagement and improve student learning in large, introductory courses. To examine the impact of adopting a blended model on student engagement, data was collected in the last offering of the traditional format and in the initial offering of the blended format for each participating course. Toward the end of each semester, all students in a course were invited to complete a paper-based version of the Student Class-Level Survey of Student Engagement (Student CLASSE). Ouimet and Smallwood (2005) describe the Student CLASSE as an engagement survey that measures student engagement at the course level. The 40-item Student CLASSE consists of five sections: engagement activities, cognitive skills, other educational practices, class atmosphere, and demographics. The engagement activities section is made up of 19 items derived from the National Survey of Student Engagement (NSSE), the cognitive skills section consists of a set of five items related to Bloom's Taxonomy, and finally the other educational practices and class atmosphere sections include items developed to examine students’ study habits and study styles (Ouimet and Smallwood 2005).

To examine the impact of course redesign on student engagement, the 19 items that made up the engagement activities section of the Student CLASSE were organized into six scalelets based on results of principal components analysis with promax (oblique) rotation. According to Pike (2006, p 552) scalelets consist of sets of survey questions related to specific aspects of students’ educational experiences. The six scalelets were labelled: active learning during class, active learning outside class, collaborative learning, course challenge, student-faculty interactions, and writing skills. Examples of items within each scalelet are shown in Table I.

Scalelet scores were obtained by calculating the average score for items that made up a scalelet. Each item on the Student CLASSE is on a 4-point scale, as a result, scalelet scores could range from 1 (indicating no engagement) to 4 (high levels of engagement). Two scalelets were of particular interest to the Course Redesign Project: active learning during class and student-faculty interactions. Part of course redesign involved the development of active-learning labs within each course. It was therefore important to determine whether these labs were perceived by students to promote active learning. Furthermore, although student learning hours remained unchanged between the traditional and blended formats, instructors were concerned about the impact of reduced face-to-face time on students’ perceptions of student-faculty interaction. These two scalelets were therefore used to answer the question: Are students in blended formats engaged in their learning differently than those in the traditional formats?

<table>
<thead>
<tr>
<th>Scalelet</th>
<th>Example item</th>
</tr>
</thead>
<tbody>
<tr>
<td>Active learning during class</td>
<td>Asked questions during class</td>
</tr>
<tr>
<td>Active learning outside class</td>
<td>Participated in a community-based project</td>
</tr>
<tr>
<td>Collaborative learning</td>
<td>Worked with classmates outside class</td>
</tr>
<tr>
<td>Course challenge</td>
<td>Worked harder than you expected</td>
</tr>
</tbody>
</table>
To answer this question, independent sample T-tests were conducted to determine whether there were statistically significant differences between scalelet scores for students in blended formats versus those in traditional formats. In each of the three courses, baseline data (i.e. data from the traditional format) was collected at the end of the 2011/12 academic year while data was collected for the first offering of the blended format at the end of the 2012/13 academic year. Within the Classics course, a sample of 107 out of 409 (26%) students provided baseline data while a sample of 489 out of 560 (87%) students provided data for the first offering of the course’s blended offering. Similarly, within the Gender Studies course, a sample of 118 out of 273 (43%) students provided baseline data while a sample of 140 out of 298 (47%) students provided data for the first offering of the course’s blended offering. Finally, within the Sociology course, a sample of 201 out of 742 (28%) students provided baseline data while a sample of 455 out of 771 (59%) students provided data for the first offering of the course’s blended offering.

Results of independent sample T-tests are presented in Tables II, III and IV for the Classics, Gender Studies, and Sociology course respectively. Across all three courses average scalelet scores were higher in the blended learning format than in the traditional format. Supporting student perceptions of greater engagement in the blended learning formats, across all three courses, statistically significant (p < 0.05) differences were found for the active learning during class scalelet. In terms of student-faculty interactions, in the Classics and Sociology courses, greater engagement in the blended learning formats was also evident and statistically significant (p < 0.05). Overall, the blended learning formats adopted by each course were perceived to promote greater student engagement than the traditional learning formats.

Table II
Results for Classics course

<table>
<thead>
<tr>
<th>Scalelet</th>
<th>Sample size</th>
<th>Average score</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Active learning during class</td>
<td>Traditional</td>
<td>107</td>
<td>1.1682</td>
</tr>
<tr>
<td></td>
<td>Blended (1st)</td>
<td>486</td>
<td>2.8529*</td>
</tr>
<tr>
<td>Student-Faculty interactions</td>
<td>Traditional</td>
<td>107</td>
<td>1.5304</td>
</tr>
<tr>
<td></td>
<td>Blended (1st)</td>
<td>483</td>
<td>1.6672*</td>
</tr>
</tbody>
</table>

*statistically significant difference found between formats using alpha = 0.05

Table III
Results for Gender Studies course

<table>
<thead>
<tr>
<th>Scalelet</th>
<th>Sample size</th>
<th>Average score</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Active learning during class</td>
<td>Traditional</td>
<td>118</td>
<td>2.1229</td>
</tr>
<tr>
<td></td>
<td>Blended (1st)</td>
<td>138</td>
<td>2.3804*</td>
</tr>
<tr>
<td>Student-Faculty interactions</td>
<td>Traditional</td>
<td>118</td>
<td>1.8905</td>
</tr>
<tr>
<td></td>
<td>Blended (1st)</td>
<td>139</td>
<td>1.9466</td>
</tr>
</tbody>
</table>

*statistically significant difference found between formats using alpha = 0.05

Table IV
Results for Sociology course

<table>
<thead>
<tr>
<th>Scalelet</th>
<th>Sample size</th>
<th>Average score</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Active learning during</td>
<td>Traditional</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The improvements in the active learning scalelet in all three courses is likely attributable to the deliberate inclusion of structured learning activities in the weekly group labs. Prior to being developed into blended formats the courses comprised large lectures only (Classics) or included conventional tutorials where the teaching assistant reviewed the week’s materials and answered student questions (Gender Studies and Sociology). The redesign process focuses on the development of small group activities, where students, working in groups of 5 - 8, are expected to complete work before class, to collaborate during the activity, and occasionally, to assess their peers. Activities are documented in course manuals to ensure consistency, and teaching assistants play the role of facilitators rather than instructors. In the case of the Sociology course, by reducing the lecture sections from around 400 to 145 students, the instructor was able to incorporate some active learning components in the lectures as well.

Despite the misgivings expressed by instructors regarding the reduction of face-to-face contact time in the blended format, from 3 to 2 hours per week in the Gender Studies and Sociology courses, and from 3 hours to 1 hour per week in the Classics course, student-faculty interactions were perceived as being better. Since the CLASSE survey does not distinguish between faculty members and teaching assistants, nor is it likely that student respondents would have drawn this distinction, it is probable that the interactions between the teaching assistants in the more intimate setting of the group learning labs would have influenced the results positively. Unlike the Classics and Sociology courses, the improvement in student-faculty interactions in the Gender Studies course was not statistically significant, something that may be attributable, in part, to unrelated staffing issues. While the other courses were taught by the same instructor in their traditional and blended formats (both of whom had taught the courses for several years before that), Gender Studies underwent an unexpected change of instructor very late in the development process. The instructor who had taught the traditional course and had completed most of the development of the blended format was replaced by an instructor who had never taught the course before.

In a comparative study involving an introductory Psychology class, Smith and Cardaciotto (2011) found that students assigned to an active learning section reported greater engagement with and retention of the course material, but less enjoyment in comparison to students in the same course learning under more passive conditions. Student satisfaction surveys conducted at the end of the three blended courses in the Course Redesign Project showed similar results. Although the student engagement scores improved in the blended format, instructors were dismayed to find their student evaluations were, on average, lower than in previous years. By improving communication about the course format, thereby setting more realistic student expectations, it is possible that the satisfaction evaluations might improve. In addition, as blended formats become more widely used within the Faculty, the active learning approach may become the norm.

The CLASSE surveys have not only allowed the Project’s larger questions about student learning in different formats to be answered, at least in a preliminary way, but have also provided the instructors of the blended courses with rich data for enhancing their courses further. Although the CLASSE survey is designed for face-to-face classroom courses, and

<table>
<thead>
<tr>
<th>class</th>
<th>182</th>
<th>1.5577</th>
<th>.75306</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blended (1st)</td>
<td>455</td>
<td>2.6835*</td>
<td>.90023</td>
</tr>
<tr>
<td>Traditional</td>
<td>187</td>
<td>1.9884</td>
<td>.65075</td>
</tr>
<tr>
<td>Blended (1st)</td>
<td>455</td>
<td>2.1945*</td>
<td>.58267</td>
</tr>
</tbody>
</table>

*statistically significant difference found between formats using alpha = 0.05

5 Discussion
Therefore has some shortcomings when applied to courses that blend online and classroom learning, the individual items can nonetheless be used to evaluate how effectively course objectives have been met and to suggest areas in which improvements can be made.

The first phase of the Course Redesign Project has included subjects in the social sciences and humanities - Sociology, Gender Studies and Classics. The Project itself was preceded by innovations in two other social science departments in the Faculty of Arts and Science, Psychology and Geography. After becoming dissatisfied with the learning experience students were having in their large classes, instructors of the Principles of Psychology and Introduction to Human Geography independently decided to redevelop their courses as blended formats in order to address this. Not surprisingly, given the high level of pedagogical innovation in the Science, Technology, Engineering and Math (STEM) disciplines worldwide, the second phase of the Course Redesign Project will include high-enrolment introductory science courses: Calculus, Biology and Chemistry, as well as a large Drama course.

In conclusion, focusing innovation on the development of blended formats for large introductory courses has yielded promising preliminary results showing improvements in aspects such as active learning in the classroom and faculty-student interactions. While it is premature to draw conclusions about longer term effects, these initial positive results suggest that the Course Redesign Project—which will include over 8,000 enrolments in the 2013/14 academic year—could be have a significant impact on improving the student learning experience in the Faculty of Arts and Science.

References


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Tagging and Linking Lecture Audio Recordings: Goals and Practice

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Abstract: Making and distributing audio recordings of lectures is cheap and technically straightforward, and these recordings represent an underexploited teaching resource. We explore the reasons why such recordings are not more used; we believe the barriers inhibiting such use should be easily overcome. Students can listen to a lecture they missed, or re-listen to a lecture at revision time, but their interaction is limited by the affordances of the replaying technology. Listening to lecture audio is generally solitary, linear, and disjoint from other available media.

In this paper, we describe a tool we are developing at the University of Glasgow, which enriches students' interactions with lecture audio. We describe our experiments with this tool in session 2012-13. Fewer students used the tool than we expected would naturally do so, and we discuss some possible explanations for this.

1. Introduction
Making audio recordings of lectures is cheap (in money and time), and technically straightforward. Together, these mean that it is easy for lecturing staff to create this additional resource without much in the way of support, which in turn makes it easy for them to do so routinely and robustly, with little intellectual or technical buy-in. It is also reasonably easy to distribute the audio to students, and people have in the past done so using VLEs or services such as Apple's iTunes.

It is hard to escape the feeling, however, that while it is easy to make recordings, they are hard to exploit fully: there is more value in lecture recordings than is readily accessible. Students can listen to a lecture they missed, or re-listen to a lecture at revision time, but their interaction is limited by the affordances of the replaying technology. Listening to lecture audio is generally solitary, linear, and disjoint from other available media.

In this paper, we describe a tool we are developing at the University of Glasgow, which enriches students' interactions with lecture audio. We describe our experiments with this tool in session 2012-13.

Our general ambitions are:
to elicit (and share) student generated content in the form of tags attached to audio instants, and links between the audio and other lecturer- or student-generated material;
to enable and encourage students to interact with the available material, which helps them reprocess it intellectually through, amongst other things, a type of prompt rehearsal;
to support that reprocessing with pedagogically well-founded exercises and activities; and
to enable ("empower") students to interact with institutionally provided materials, on multiple devices (including mobile), in an attractive and up-to-the-minute style.

In practice, the `audiotag' tool:
organises and distributes related recordings into 'podcasts';
supports per-use 'tagging' of instants within the audio, in a manner similar to well-known social websites such as Delicious or Flickr;
supports 'likes' of tags, therefore supporting student voting on successful or insightful tagging actions; and
is designed to be coupled to other tools (we are wrestling with the pedagogic and user-interface challenges of live tagging via mobile devices, in lectures), so that we can support an "ecology" of applications which link to, and are linked from, the tagged audio instants.

There is a video demo of a recent (but not completely up-to-date) version of audiotag at <http://vimeo.com/50070137>.

During session 2012-13, the Audiotag team received funding from Glasgow University (i) to formally evaluate the audiotag service in the context of lecture courses across the university, (ii) to evolve it towards greater usability, (iii) to develop teaching techniques to help students
exploit the service possibilities, and (iv) to work with a student developer revisiting the interface and imaginatively exploiting the available service ecology, with cross-links to other media.

To our surprise, we report below a suprisingly low engagement with the audio lectures, on the part of the students we have worked with, which has frustrated our attempts to devise more interesting pedagogical exercises. We discuss some possible explanations for this. In section 2 we describe some of the motivating background for our current work. In section 3 we describe the software system we have developed to support this work, and in section 4 the results of using this tool to support a set of six lecture courses in astronomy. Finally, in section 5 we reflect on the results we have obtained.

2. Background and motivation

It is still relatively uncommon for lecturers to make available recordings of their lectures. The latest Digital Natives survey (Gardiner 2011) shows that 90% of students expect lecture recordings, so there is at least some, possibly somewhat unfocused, demand for them. Basic audio-recordings of lectures are easy to produce and distribute (creating a podcast is both cost- and time-efficient) so that there are few real technical or cost barriers to making recordings available. Though there is often some scepticism about the practice, in our experience relatively few lecturers are too shy to have their words recorded, or raise for example intellectual property concerns. Why, then, is lecture recording not ubiquitous? We can find some explanation by looking more closely at the supply of recordings, the demand for them, and the pedagogical justification for and use of them. We believe that the supply barriers are deemed significant because the demand is too low, the demand is low (or at least too vague) because the student body is unfamiliar with the possibility and so does not know to ask for a supply, and the pedagogical benefits (which might cause lecturers to create the supply irrespective of demand) are underexplored because too few lecturers use the technique for them to successfully explore the space of possibilities.

Supply: Digital voice recorders are now inexpensive (ranging from £30-£150), most people seem to have reasonably ready access to basic audio-editing software, and they can distribute audio files by uploading them to the university Moodle servers. Several of the current group used the free application 'Audacity' to make minimal edits\(^\text{25}\), which took perhaps 15 minutes of effort after a lecture; we do not expect lecturers (or support staff) to do any elaborate post-production beyond, perhaps, top-and-tailing, and de-noising, and in particular we do not expect anyone to produce anything more sophisticated than a reasonably audible hour of one individual's monologue. The final step of making a podcast from the audio collection\(^\text{26}\) is more intricate, but Moodle, like many similar services, has a podcasting plugin. Each of these technical obstacles is by itself relatively minor, but in combination they are a barrier substantial enough that only an enthusiast would currently breast them.

There is also a type of 'supply' question from the students' side, in the supply of technical expertise which students can already be assumed to possess. Students (or the younger ones at least) have been described as 'digital natives', more than 98% of whom have ready access to a computer, 65% of whom share photos on social networks, and 20% of whom even report that they edit audio or video, at some level, on a monthly basis. Given this, it is very tempting to assume that there is little or no effective barrier to students' uptake of reasonably straightforward learning technology.

Demand: It is not particularly surprising that a large fraction of students report that they would welcome lecture recordings (Gardiner 2011) but this does not appear to be reflected in actual usage figures when the recordings are made available (see also the usage analysis below). It appears that, although students express interest in recordings, they don't have an urgent need for them when the recordings are made available in fact. We speculate that this

\(^{25}\) See audacity.sourceforge.net

\(^{26}\) The distinction between a podcast and a mere collection of audio files is the presence of a ‘feed’ – an RSS or Atom file – which allows a ‘feed reader’ application to be automatically notified of the appearance of new ‘episodes’, so that a user doesn’t have to repeatedly re-check the audio source.
is because an hour-long recording is not a particularly usable format: it may be useful to provide a 'listen-again' opportunity on a long commute, but the devices that students naturally use to listen to podcasts, being primarily targeted at either music or at podcasts patterned after magazine-style radio programmes, are not easy to use for dipping into, or referring to chunks within, a long recording.

Pedagogic utility: Despite the lack of an urgent demand from our intended users, we believe that there is a great deal of educational value latent within lecture audio. This arises partly from its pragmatic use as a revision aid, but also, more fundamentally, because it represents a different modality for instruction, which may complement or in extreme cases replace more traditional textual routes for some students. From this position is it natural to investigate that use of our system within a peer-assisted learning technique such as Jigsaw (Aronson 2013), which members of our team have already successful used within the university; in the event, however, we have not yet had the opportunity to verify our intuitions here.

In summary, therefore, the supply barriers are overall neither negligible nor notably large; the student demand is only diffusely present, but we again believe that rather modest support will elicit this in a more focused form; the pedagogical pressure is still rather vague (in the sense that we as teachers are unsure how best to exploit the resource). Together, these observations suggest to us that a relatively modest technological intervention can have a pronounced and useful - possibly even transformative - effect.

3. The Audiotag system

At the heart of our experiment here is a prototype system, 'Audiotag', developed by one of the authors, which supports upload of audio recordings, distribution of recordings via podcasts, and collaborative user tagging of instants within the audio. The system is currently online at www.astro.gla.ac.uk/podcasting/\(^{27}\) and the code is available at https://bitbucket.org/nxg/audiotag/, under an open licence. We used versions 0.5 and 0.6 during the course of the session.

Some of the authors have used an earlier version of this system in previous years, to make recordings available to students in astronomy, but without laying much stress on the tool, or on the tagging functionality it offers.

In the figure below we show the user interface to one of the recordings, showing a recording starting at 10:04 on 19 September 2012, and showing two instants within the opening few minutes tagged with, respectively 'moodle' and 'axioms'; this panel can be scrolled to left and right, and zoomed in and out to show more or less of the recording. The user can play, skip and rewind the audio using the buttons below the display, and add tags to the 'current instant' using the tag box at the bottom. As well, students can 'like' a tag. The system is integrated with the university-wide IT identity system, so that users do not have to register separately for the system.

\(^{27}\) This is not yet a supported service, so this URL should not be regarded as stable in the long term.
Lecture 1: introduction

Introduction to the course; central ideas and definitions; inential frames; how to measure lengths and times

As well as making recordings available to listen through this interface, the system also generates a podcast feed so that users can subscribe to notifications when new recordings are added to a course.

The system has a very simple permissions model: each course has an 'owner', who is typically the lecturer; only the 'owner' can upload recordings, and only logged-in users can add tags, but we have not so far felt it necessary to restrict access to the audio, so that anyone can download the lecture audio, and view all the tags, without authenticating.

4. Delivering lectures to students - our experimental evidence this year

Two of the authors (NG and NL) have previously used early versions of the Audiotag server to deliver lecture audio to students, in both second year and honours, but without laying much stress on it. Anecdotal evidence suggests that students occasionally used lecture recordings to catch up on lectures they had missed, but most use was at revision time, at the end of the session, when students would listen to complete lectures rather than dropping in to particular instants; several students reported listening to the lectures whilst commuting.

There was very little tagging activity in these earlier presentations, but students spontaneously expressed enthusiasm, both informally and in course-monitoring questionnaires, for the idea of making the lectures available.

In session 2012-13 we obtained money from the Chancellor's Fund - an internal Glasgow University learning development fund - to make the user interface considerably simpler, and to experiment with different ways of integrating the Audiotag server with other pedagogical techniques.

Our hope was that we could use the broad insights of the Jigsaw technique (namely its principled approach to multi-modal group work) to help students enrich their learning by creating links between their own lecture notes, pre-distributed lecture notes, and the audio recordings.
First, however, there is a bootstrap problem. Before we can create any dense and multi-modal network of links to tagged audio, we have to have that tagged audio. Our experience of previous years suggested that this was unlikely to happen spontaneously (even though we believed that we had significantly improved the interface), so we resorted to an apparently reliable alternative: bribery. Part of the Chancellor’s Fund support was intended as ‘incentives’, which in this case took the form of Google Nexus 7 tablet computers as prizes for three of the courses. We studied six one-semester courses, each of which was a coherent block of 10 lectures given by a single lecturer, within a larger full-session course. The collection of courses is as in the figure below.

<table>
<thead>
<tr>
<th>Code</th>
<th>Course</th>
<th>N</th>
<th>Sem</th>
<th>Year</th>
<th>Prize?</th>
</tr>
</thead>
<tbody>
<tr>
<td>a1cos</td>
<td>Astronomy 1: Cosmology</td>
<td>112</td>
<td>2nd</td>
<td>1</td>
<td>no</td>
</tr>
<tr>
<td>sats</td>
<td>Astronomy 2: Stars and their Spectra</td>
<td>69</td>
<td>2nd</td>
<td>2</td>
<td>no</td>
</tr>
<tr>
<td>cos</td>
<td>Honours Astronomy: Cosmology</td>
<td>58</td>
<td>1st</td>
<td></td>
<td>no</td>
</tr>
<tr>
<td>e1lds1</td>
<td>Exploring the Cosmos: Life and Death of Stars</td>
<td>264</td>
<td>2nd</td>
<td>1</td>
<td>yes</td>
</tr>
<tr>
<td>a2sr</td>
<td>Astronomy 2: Special Relativity</td>
<td>69</td>
<td>1st</td>
<td>2</td>
<td>yes</td>
</tr>
<tr>
<td>grg1</td>
<td>Honours Astronomy: General Relativity</td>
<td>38</td>
<td>1st</td>
<td></td>
<td>yes</td>
</tr>
</tbody>
</table>

Courses ‘a1cos’, ‘e1lds1’ and ‘cos’ were taught by NL, courses ‘a2sr’ and grg1 by NG, and ‘sats’ by another colleague in astronomy\(^{28}\). There were five other courses this year where lecturers experimented with the system, and uploaded either a complete or partial set of lectures; in none were the results obviously different from the three ‘no-prize’ courses listed above.

The courses here represent a broad range of students. The ‘Exploring the Cosmos’ course is a large first-year course which is often chosen as a filler; while the students generally enjoy it and are challenged by it (sometimes more than they expected, under both headings), it is not an academic priority for many of its students. The ‘Astronomy 1’ and ‘Astronomy 2’ courses are required courses for students aiming for astronomy degrees. The two honours courses are both quite challenging; in particular the ‘grg1’ course is optional for the school’s MSc joint-Astronomy students and compulsory for MSc Theoretical Physics students; by this stage the students on the honours courses are highly motivated and are in good command of their learning strategies.

In the three ‘prize’ courses, the class was introduced to the system via an in-lecture demonstration or pointer to the vimeo.com video mentioned above, and told that there was a prize - the tablet computer - to be awarded for the ‘best tagger’; after discussion with the class, it was decided that this prize would be awarded to the students whose tags had accumulated the most ‘likes’ by the day of the course’s final exam, in May. In the ‘cos’, ‘a2sr’ and grg1 courses, the lecturer added a number of demonstration tags (7, 20, 27 respectively) to the first lecture. In the three ‘no-prize’ courses, students were introduced to the system, and encouraged once or twice to use it. None of the classes were prescribed any activities specifically involving the tagging system.

4.1 Results
From examining the server logs, we discover the RSS (podcast) feeds for the studied courses were all downloaded on numerous occasions (see figure below); a single subscription would account for numerous downloads. Unfortunately, the server logging available in this version does not allow us to determine how many unique subscribers there were or what the RSS clients were, and all we can say at this point was that we suspect

\(^{28}\) We are grateful to Matt Pitkin for his willingness to experiment here.
there was only a single subscriber to the 'sats', 'cos' and 'e1lds1' feeds, or perhaps two (so between 0.5% and 3.5% of the respective classes), but that a substantial fraction of the students in the other courses did subscribe to the podcast feeds.

<table>
<thead>
<tr>
<th>Course</th>
<th>a1cos</th>
<th>sats</th>
<th>cos</th>
<th>e1lds1</th>
<th>a2sr</th>
<th>grg1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nrss</td>
<td>756</td>
<td>34</td>
<td>100</td>
<td>25</td>
<td>8755</td>
<td>14439</td>
</tr>
</tbody>
</table>

However many students subscribed to the podcasts, only a very small number of students have gone on to add tags. In the table below, we list the number of students who added tags, the number of tags that they added, and the number of subsequent tag 'likes'.

<table>
<thead>
<tr>
<th>Student</th>
<th>Course</th>
<th>Tags (in lectures 1-10)</th>
<th>Total</th>
<th>Likes</th>
</tr>
</thead>
<tbody>
<tr>
<td>KM</td>
<td>e1lds1</td>
<td>4, 5, 5, 6, 5, 3, 4, 6, 0, 0</td>
<td>38</td>
<td>28 by KO, 27 by AR</td>
</tr>
<tr>
<td>HP</td>
<td>e1lds1</td>
<td>0, 2, 0, 0, 0, 0, 0, 0, 0, 0, 0</td>
<td>2</td>
<td>1 by KM, 1 by KO</td>
</tr>
<tr>
<td>GA</td>
<td>a2sr</td>
<td>0, 9, 0, 0, 28, 16, 0, 0, 0, 0</td>
<td>38</td>
<td></td>
</tr>
<tr>
<td>KE</td>
<td>a2sr</td>
<td>0, 0, 20, 24, 0, 1, 25, 0, 25, 32</td>
<td>127</td>
<td></td>
</tr>
<tr>
<td>SL</td>
<td>a2sr</td>
<td>0, 0, 0, 0, 0, 0, 0, 0, 0, 2</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>MG</td>
<td>grg1</td>
<td>0, 0, 0, 0, 0, 0, 0, 0, 21, 15</td>
<td>36</td>
<td>2 by MS</td>
</tr>
<tr>
<td>MS</td>
<td>grg1</td>
<td>0, 33, 2, 41, 43, 34, 0, 40, 25, 15</td>
<td>233</td>
<td></td>
</tr>
</tbody>
</table>

The three students who tagged extensively (KM, KE and MS) did so fairly consistently, and the two students who 'liked' most, added no tags themselves. The students appear to have added tags fairly promptly after the lectures, with the exception of KE's, MG's and MS's tags on their respective lectures 9 and 10, which were tagged respectively one, one, and four months after the corresponding lectures.

Our original plan was to use the three first-semester courses to establish a baseline upon which to investigate the effect of other pedagogical interventions in semester two. The surprisingly low response, however, caused us to change our plans, and make the same low-intervention observations again to try to establish a more robust baseline, or to investigate whether there was any difference between the first and second semesters.

5. Discussion
As we discussed in Section 2, we were initially confident that a technically modest intervention would produce a significant effect. This confidence seems to have been misplaced: either the barriers are higher than we expected, or our intervention was more modest than is required.

Interface - general: User interface design is always harder than it appears, and it may be that the interface is simply too hard for users to grasp readily. We think this is rather unlikely, however, since the interface has been considerably simplified from earlier versions of the system, and the informal feedback we have obtained from students has included suggestions for adjustments without giving any impression that there is a major usability problem.

Interface - interaction model: The implicit interaction model, in the current design, is that a student will either review a lecture shortly after it is delivered, or else return to a lecture at revision time, and work through it adding tags. While this deliberate review technique is often suggested to students, we suspect rather few follow it in fact. It may be that this interaction model is more firmly locked in to the system's current interface than we had thought, so that rather few students are prompted to use it in the course their existing study habits. If so,
dealing with it would require either a change in the underlying interaction model, or else the introduction of explicit exercises to force the students into interaction. Over the course of the year, an undergraduate Computing Science student has been working on an alternative interaction model, in which students use a mobile device to add at the current instant, during a lecture, selections from a repertoire of tags which are pre-set and limited by the system. These tags might represent key moments marking 'I'm lost here' or 'exam', and because they are added while the user is already interacting with the lecture audio (as live speech rather than as a recording), they might evade the model-related problems described above. Tags such as 'I'm lost' are probably most comfortably kept at least semi-private; this requires a non-trivial server change, and so while this approach is promising, it was not possible to fully develop it in this prototype cycle.

One way to align the system's model and the students' is, as above, to change the system. An alternative is to change the students: we have designs for specific exercises which (for example) require the students to make explicit the links between course handouts and lecture audio, so forcing an increase in the number of tags, and thereby intended to create enough value in the set of tags, that students will interact with the tags completely enough that they cross a threshold to spontaneously adding more.

Unfamiliarity: We have supposed that students would be sufficiently familiar with the concept of tagging online content, through their experience of existing 'Web 2.0' services, that tagging audio would require no introduction, little training and only mild encouragement. It is not obvious that this is false, but until we have ruled it out, we must consider the possibility that we simply did not introduce the system clearly enough, so that the students failed to understand what to do. If so, this would be a depressingly simple explanation for the lack of engagement.

Incentive: The incentive we used on this occasion was a reasonably generous prize. Although the nature of an incentive can sometimes have paradoxical effects on the response, the results above indicate that the courses where there was tagging activity are precisely the courses where a prize was offered, so the prize does seem to have had its intended effect (albeit less pronounced than we expected).

Overall, this project was a technical success but so far puzzlingly disappointing in its outcomes. We initially believed we had rather small barriers to overcome, dividing students' current practice and interest from the benefits latent in an easily-obtainable audio resource. We expected that we would readily see rather natural use of the tagging facilities in the various student populations, so that we could promptly go on to investigate how this use was changed by pedagogically motivated exercises. The results of our investigation suggest (i) that the barriers are higher than we have described in Section 2, or (ii) that we have a poor model of how audio tagging fits in to students' current practice, or else (iii, which is not a completely separate issue) that the 'natural' level and pattern of tagging, and the pattern of tagging produced by lecturers' exercises, are more fully decoupled than we might imagine. In the coming session we plan to repeat the experiment with a modified interface and a clearer notion of the place of lecturer-driven exercises, in order to better investigate the shape of the barriers between students and the latent value of lecture audio recordings.

References
Aronson, Elliot. Online: www.jigsaw.org (last accessed May 2013).
Gardiner, Kerr and Sarah Honeychurch, First Year Student Use of Technology and their Expectations of Technology Use in their Courses (2011). Online: http://www.gla.ac.uk/services/senateoffice/tea/studentfeedback/thestudentvoice/digitalnative s/ (last accessed May 2013)

29 We thank Melissa Campbell for her contributions to the project.
Collaboration in curriculum development

Developing Professional Practice in Partnership

Fiona Milne
University of the West of Scotland

ABSTRACT: This paper discusses the design and development, successes and challenges surrounding a partnership-led curriculum enhancement project undertaken by staff, students and alumni in the School of Creative and Cultural Industries of the University of the West of Scotland. The project, supported by Institutional 'Developing and Supporting the Curriculum' (DSC) Enhancement Theme funding, was designed to contribute to implementation of the ePortfolio element of a larger 'Professional Practice' project to encourage engagement with Personal Development Planning (PDP), e-Portfolio and Personal Tutoring. Some of the current thinking about the 'Student as Producer', which influenced the design of the project, is discussed along with the progress and findings of the project to date. The paper concludes by recognising that co-production in curriculum development is a valuable way forward in the subject area of creative and cultural industries and beyond.

1 Introduction

The purpose of this paper is to discuss the design and development, successes and challenges surrounding a student-led curriculum enhancement project undertaken in the School of Creative and Cultural Industries (herein CCI) at University of the West of Scotland (UWS). The project, supported by Institutional 'Developing and Supporting the Curriculum' (DSC) Enhancement Theme funding, was designed to contribute to implementation of the ePortfolio element of a larger 'Professional Practice' project to encourage engagement with Personal Development Planning (PDP), e-Portfolio and Personal Tutoring.

Engagement with PDP and e-Portfolio is patchy across the school. Similarly, the School's Personal Tutor system is under-utilised. With a view to enhancement of engagement within these areas, as well as to continue the implementation of a new UWS Student Support and Guidance policy 2012, it was agreed that students would be asked to utilise an ePortfolio to inform and support the personal tutoring process. Clearly, to help progress this approach effectively, it was important to develop examples of good practice and what could/should be included in the ePortfolio.

In 2011 Bovill et al (2011) suggested that academic staff should be consulting students about teaching approaches, courses and curricula and exploring ways to involve them as full participants in the design process. This, along with on-going discussions around the concept of 'Student as Producer' (McCulloch 2009; Neary 2009, Taylor & Wilding 2009), helped inform the design and main aim of the project: to involve students, academic staff and alumni from across the School in the development of subject specific exemplars of ePortfolios using the Mahara e-Portfolio tool to support reflection and development.

Initially it was proposed that the funding would be used to employ 5 students during Trimester 2 2012 to create sample Mahara ePortfolios for their subject area (Music, Performance, Art, Broadcast, Screen, Journalism) that would be used to support students in the development of their own ePortfolios. It was envisaged that the work would include development of templates, instructions etc. to encourage autonomous learning and that the use of the concept ‘for students, by students’ would enhance engagement with the tool and help ensure it was student friendly in content and design.
This approach, however, became impractical for a number of reasons which will be discussed later, and led to recruitment of two School of CCI Alumni to progress the project.

It is important to note that, as the project is currently on-going, with a deadline for completion of June 2013, this paper focuses on progress to date and an update will be presented at the conference in June and published as a revised paper in the post-conference proceedings.

The paper will begin by providing some key definitions and discussion of concepts that underpinned the Mahara project before providing some background to the wider ‘Professional Practice’ project to put it into context. The paper will then go on to discuss the implementation of the project, its challenges and successes and the key findings and conclusions reached to date.

1.1 Definitions

It has become increasingly clear that students in the School of CCI engage more readily with the term ‘Professional Practice’ than with ‘PDP’, ‘employability’ etc. so ‘Professional Practice’ has now been adopted across the School to mean ‘the process of transition through CCI that encompasses elements of Learning, Teaching and Assessment such as Employability, PDP, Graduate Attributes and Work Related Learning’.

The revised UWS PDP Policy (2012) defines PDP as ‘a structured and supported process undertaken by an individual to reflect upon their own learning and/or achievement and to plan for their personal education and career development’.

An integral part of the concept of Professional Practice is for a student to take a portfolio approach to chart and record personal and professional development during their time with CCI and beyond. As stated, the project centres around development of Mahara ePortfolio exemplars - 'purposeful collections of information and digital artefacts that demonstrate development or evidence learning outcomes, skills or competencies, including synthesis of ideas, reflection on achievements, self-awareness and forward planning' (Cotterill, 2007).

Reflection on development of their employability is a key element of every student’s journey in CCI. The definition used in the School, like many institutions, is based on the 2005 definition presented by Mantz Yorke: ‘a set of achievements - skills, understandings and personal attributes - that make graduates more likely to gain employment and be successful in their chosen occupations’.

The Mahara project centres on enhancement of the curriculum through engagement of students by students. The concept of the ‘curriculum as a vehicle’ which recognises the importance of the curriculum as the ‘fulcrum between high level policies and the students that these policies are intended to serve’ (Fotheringham et al 2012, p2) is a useful one in the context of this project which brings together the curriculum as both a product30 and a process31 to drive delivery of institutional agendas and priorities in collaboration with the students they are designed to serve.

2. Background to the Professional Practice Project

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30 The structure and content is dictated by industry and professional bodies (Fotheringham et al, 2012) – this is true of programmes in CCI, which are accredited by Creative Skillset; JAMES; BACSA; BJTC and Drama UK, all professional bodies which have certain requirements and expectations.

31 Prioritises interaction and community over content and structure i.e. focuses on a wider learning and teaching environment and offer of a variety of student experiences, mediated by students (Fotheringham et al 2012)
The rate of change in the higher education landscape requires institutions to regularly reflect and make changes to meet new and revised demands. Since 2011 UWS has launched new strategies addressing research and knowledge exchange; internationalisation and global citizenship and; learning, teaching and assessment (LTAS). These strategies, along with a number of other drivers for change discussed below, provided the perfect opportunity to develop a more flexible, coherent, efficient, effective and streamlined strategy for the support, development and recording of the professional practice of students in CCI.

2.1 Drivers for Change

As Fotheringham (2012) states, we make many assumptions about students: what they like, what they know, how they learn, how they interact and base decisions on this. Previous investigations and research in CCI have demonstrated that the assumptions made about students and the decisions made based on these assumptions do not always enhance the student experience. It was important, therefore, when developing the Professional Practice project that assumptions were tested with colleagues, students and industry professionals.

Review and consultation work carried out with colleagues from December 2010 around systematisation in the promotion and recording of Work Related Learning (WRL) and the mapping of employability, PDP, Graduate Attributes and WRL across all programmes and modules highlighted that many elements of professional practice are embedded into the curriculum, but they are not always particularly well articulated in module descriptors and handbooks so students are not always aware of them.

This was supported by research and evidence from Student-Staff Liaison groups, the Creative Skillset Reaccreditation Process 2011/12, the National Student Survey (NSS) 2012 and the 2011 Enhancement Led Institutional Review (ELIR) which all suggested that some of our students do not realise or understand their achievements and the competences and professional practice they have gained i.e. what, where and how they are developing.

Taking this into account, along with the fact that increased competition in the workplace requires a strong evidence base of skills and abilities to meet employer and industry expectations and clear articulation of them, provided proof that a strategy was required to enhance the transparency of development of professional practice and student's recognition, reflection on and recording of that development.

2.2 Professional Practice on Moodle

A Moodle 'Professional Practice' site is being developed to bring together sources and resources to support students in their reflections and goal setting and provide opportunities to develop their professional practice. The key elements of the site, to which all students and staff from across the School will be signed up, are Work Related Learning opportunities; competitions; festivals; volunteering; employment; project briefs etc.; sources and resources to support networking; development of professional practice; and awareness of current issues, including the nature and landscape of the creative industries. The use of the site will be embedded into modules to enhance the transparency of development of professional practice. Colleagues will also be encouraged to use the site for directed learning to support class contact time and independent learning.

The site will also contain links to Mahara which will contain tailored materials to support reflection; self-assessment, including identifying employability skills and graduate attributes and how to develop them; goal setting; and the use of the Mahara ePortfolio system to record, evidence and articulate development of professional practice. The subject specific ePortfolio exemplars developed by students for students will be an integral part of the site.
2.3 The ePortfolio Approach

Whilst variable approaches to learning, teaching and assessment (LTA) and Professional Practice are appropriate, there is scope for some systematisation in the School e.g. during the Skillset re-licensing process, it was clear that electronic versions of reflective logbooks/diaries or similar would have been easier to access than the hardcopies presented. They could also have provided more evidence of a holistic, dynamic approach, including creativity in design and content, developing in complexity during the student journey and continuing into Showcasing and beyond Graduation.

Reflection on learning is specific to the individual and support mechanisms for reflection, goal setting and discussion are needed beyond the module level. The new UWS Student Support and Guidance policy requires development of a coordinated approach to personal tutoring. Incorporation of support for development of personal and professional practice should be an integral part of that approach. The introduction of Mahara was timely for development of the CCI Personal Tutoring strategy as it clearly presented an opportunity to use it as a tool to meet the requirements of the policy and add value and structure to personal tutor meetings.

Figure 1 illustrates how the ePortfolio approach has been developed as part of the Professional Practice project to provide a template for discussions at Personal Tutor meetings.

Figure 1: The Use of ePortfolio to support Professional Practice and PT Meeting

3. The Project
In 2012, UWS transferred from Blackboard VLE and Campus Pack e-Portfolio tool to Moodle VLE and Mahara ePortfolio. From its inception, despite a rigorous implementation strategy of the UWS PDP Policy, students in CCI did not engage with the Blackboard ePortfolio tool, preferring to use Facebook (or similar) sites to communicate and promote their professional and creative identity. Although this was effective in some respects, it meant that key elements of the PDP process e.g. reflection and goal setting, were not transparent. It appears that the similarity between Mahara and Facebook, with the additional benefit of privacy, is beginning to increase engagement with ePortfolio across UWS. As stated previously, assumptions are risky so it was decided to find out from students if engagement had improved and how use of ePortfolio could be enhanced in CCI.

The past few years have seen increased criticism of the 'student as consumer' approach to the relationship between the student and the university. McCulloch (2009, p172) argues it is inappropriate and an incorrect reflection of contemporary higher education. Taylor and Wilding (2009) suggest that if students are viewed as consumers, this could lead to diminishing of learning as students tend to act in a passive manner. This would seem to be the case with some of the reflective and goal setting elements of professional practice in CCI, where even normally motivated, proactive students tend to adopt a more negative, passive attitude unless they are involved in developments and change.

To begin to overcome some of the issues above and build on students feelings that the curriculum changes are being done with them, rather than to them, the 'Student as Producer' approach (Neary, 2009) was preferred for the Mahara project i.e. curriculum design and development was planned as a co-production, where students, lecturers and others would work together to apply their knowledge for successful completion of the project. It was envisaged that this would lead to participants understanding the benefits of the curriculum developments, feel an increased sense of ownership of their higher education experience and encourage others to proactively engage with the outcomes of the project.

Bovill and Bulley's 2011 'Ladder of student participation in curriculum design' (figure 2) which divides levels of participation into 8 'rungs' of increasing participation was a useful starting point for the Mahara project.

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Students control decision-making and have substantial influence
Students in control
Partnership - a negotiated curriculum
Students have some choice and influence
Student control of some areas of choice
Students control of prescribed areas
Tutors control decision-making informed by student feedback
Wide choice from prescribed choices
Limited choice from prescribed choices
Tutors control decision-making
Participation claimed, tutor in control
Dictated curriculum - no interaction
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Figure 2: Ladder of student participation in curriculum design

Research with students from across the School, Programmes and levels was included in the remit for the project, which aimed to sit at the top of the ladder in terms of student participation.
participation i.e. 'students control decision-making and have substantial influence'. Due to
the nature of the project, however, in actuality it probably sits on the 7th/8th rung 'students
control some areas of choice', as there has to be some guidance from subject specific
academic and curriculum development staff.

As stated, it was proposed that the funding would be used to employ 5 students during
Trimester 2 2012 to create sample Mahara ePortfolios for their subject area that would be
used to support students in the development of their own portfolios. It was envisaged that
the work would include discussions with students to inform development of templates,
instructions etc. to encourage autonomous learning and that the use of the concept 'for
students, by students' would enhance engagement with the tool and help ensure it was
student friendly in content and design. The full remit provided to the producers was tied into
the overall Professional Practice proposal.

The Remit

Overall, the Mahara project remit was - 'In consultation with staff, students and industry
practitioners, create step by step instructions and learning materials to enhance engagement
with Mahara, including building exemplar ePortfolios and provision of examples of how to
use Mahara's built in social networking tools to develop communities of practice.

Key outcomes

It was suggested that key actions and outcomes would include:
Creation of exemplar Mahara portfolios which chart development, reflection and goal setting
over the course of the student journey for the 6 subject areas in the School
Music (Level 7-L10; MA Songwriting; MA Music Innovation & Entrepreneurship
Art (Digital Art Levels 9 and 10)
Performance (Contemporary Screen Acting; Performance Levels 9 and 10)
Screen (Filmmaking & Screenwriting Levels 7-10)
Broadcast (Broadcast Production Levels 7-10; MA Creative Media Practice)
Journalism (Sports Journalism Levels 7-10; MA Broadcast Journalism)
Research, design and development of a series of subject and level specific templates to
support reflection and goal setting. Templates should include examples of methods to record
and evidence reflection on learning and teaching; feedback; WRL; employability; graduate
attributes and other aspects of development of the students creative identity
Examples and guidance on the building of a repository of materials, links, templates,
reflections etc. to contribute to showcasing of work, goal setting and development of
personal and professional practice during the student journey at UWS and beyond
Emphasis and demonstration that links from Mahara can be made to existing platforms
rather than having to start from scratch. This should include examples and instructions for
linking to/use of a range of tools used by the students e.g. SoundCloud; BandCamp;
YouTube
Design of the exemplar in a way that will encourage the student to use their personal, private
space for goal setting and career planning and emphasise the content is under their control
and it is up to them if they share, what they share and who with
Guidance and examples of selection of materials for creation of portfolios for a range of
different audiences
Guidance and examples of materials for informing and supporting personal tutorial meetings,
including goal setting and progress towards goals
The project team were also asked to note issues, challenges, hurdles and overall reflections
on the project

Implementation
Recruitment of current students became impractical for a number of reasons. The first issue was that the implementation and availability of Mahara was delayed until mid-summer so students had finished. Once recruitment in Trimester 1 2012/13 commenced, it became clear that the applicants, although familiar with the use of social media, were not engaged enough with the concepts of personal development planning to be able to undertake the complexity of the work required. This was disappointing but also evidenced the importance of the project.

In hindsight, it is also clear that it was over ambitious to expect current students to be able to develop teaching materials and reflective templates that would suit the range of users and diversity of the student population in the school, from Level 7 to Level 11.

A revised approach was agreed by the Institutional Enhancement Themes Steering Committee that involved employment of two CCI Graduates to undertake the project to develop the materials in the remit but only 2 exemplars. The decrease from six to two exemplars was based on the rationale that students in CCI are becoming increasingly interdisciplinary and convergence is being encouraged. It was felt that two exemplars, supported by subject specific reflective materials, would encourage students to consider the range and overlap of their professional practice i.e. reflection on the bigger picture. The option to extend the project to include more exemplars was available if required.

The change to the ePortfolio element of the remit meant that the effective recruitment was crucial. One Alumnus was a student who entered CCI in Level 9 and completed a BA (Hons) and an MA in the School. She is currently an Associate Lecturer in CCI so has regular contact with the students and is studying for her PgCert Higher Education Teaching and Learning. Her particular focus on learning, teaching and assessment is around social media which made her an ideal candidate for the project. The other Alumnus commenced his studies at UWS in Level 7 and graduated with a 1st Class Honours so has four years experience and knowledge about the institution and the student journey, including where and how professional practice is developed. He is now a freelance filmmaker and producer with his own production company and a music, technology and filmmaking background. The two individuals complement each other in terms of background and experience and between them can cover most of the elements of professional practice offered in the School.

### 3.3 Progress and Outcomes to Date

To date, development of the ePortfolio exemplars is well underway. Instructions on the use of various tools and platforms have been integrated into the exemplars so the student does not have to switch between instructions and practical examples and use of Mahara. Use of highly technical, academic language has been avoided to help engagement. Similarly, examples relate to the subjects being studied by the students and provide illustrations of the types of evidence looked for by employers in the creative and cultural industries.

There have been a few teething problems e.g. overcoming bugs in the functionality of Mahara e.g. embedding of SoundCloud; only being able to use Mahara effectively in IE5 and Firefox but these have been overcome by the project team collaborating with the Universities Educational Technologists and staff and students in CCI.

Work has now started on development of the reflective templates with students. These will be tailored to meet the subject and level of study of the student as appropriate.

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32 Examples of the materials and the ePortfolios will be provided at the conference presentation
A current concern is how to raise the awareness of students about Mahara and encourage engagement with the project. To date, class representatives have fed into the project and back to their cohort. It is likely they will continue to be one of the main vehicles to encourage two way communication and engagement.

Additionally, focus groups will be developed in September 2013 to test the outcomes of the project, suggest enhancements, discuss how to effectively progress implementation of the professional practice project across CCI and help devise an engagement strategy.

It has become clear that one of the biggest concerns the students have is how they will access their ePortfolio after Graduation - they see little point in engaging with the tool if they cannot use it for continuous professional development. This has led to key messages that the UWS system can be accessed for a year after graduation then they can transfer to a free or paid for hosting service, e.g. http://www.foliospaces.com.

Institutional support has been an important element of this project. It would have been demotivating for the project team and the students and detrimental to the whole philosophy of the project to be told what they wanted to do was not possible. The Educational Technologists are continuously enhancing the Mahara system and are open to suggestions for improvements, especially from subject specific social media experts and students/Graduates from the schools.

Engagement of staff is also on-going. To encourage student engagement, staff must be seen to support the project and the use of Mahara, which has not always been the case. Timetable and curricular changes are underway to increase directed learning and further develop autonomous learning and some of this time could be used to embed elements of the professional practice model. It is vital that development of the reflective elements of professional practice are not viewed as an add-on, which goes back to the involvement of both staff and students in design of the strategy.

4. Conclusion

After a slow start the Mahara Project, as part of the larger Professional Practice project, has been successful to date and an update will be provided at the conference.

The knowledge and background experience of the two alumni enabled establishment of trust and credibility with students and staff in CCI and a network of industry contacts. This enabled effective partnership working to develop outputs that should meet expectations and encourage engagement with Mahara.

The project has also been a useful way to investigate some concepts of Student as Producer. Student involvement in curriculum design is a practice that will only be increased in CCI. It is proving to be a valuable method to enhance student engagement with learning, teaching and assessment and reassure staff that improvement of the student experience is based on facts not assumptions.

5. References


Bovill, C and Bulley, C (2011) A model of active student participation in curriculum design: exploring desirability and possibility. In Rust, C. Improving Student Learning (18) Global
theories and local practices: institutional, disciplinary and cultural variations. Oxford: The Oxford Centre for Staff and Educational Development, pp 176-188

Cotterill, S (2007) *What is an ePortfolio?*, available at: [www.eportfolios.ac.uk/definition](http://www.eportfolios.ac.uk/definition) [Last accessed 1 April 2013]


Taylor, P and Wilding D (2009) *Rethinking the values of higher education: the student as collaborator and producer? Undergraduate research as a case study*, Gloucester: QAA


Social media guidance, designed by students for students, is well-received and may prompt changes in online behaviour

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ABSTRACT: Social media offers opportunities to network and build a positive online profile; however, there is growing evidence that used unwisely, such sites can blur the lines between the personal and professional (Devi 2011) resulting in unanticipated negative consequences. In response to this, a number of health professional bodies have generated social media guidance for their members. Examination of this guidance reveals a range of content and formats. There is currently a paucity of research into healthcare students' views on available guidance. The paper reports on an investigation of healthcare students' views regarding currently existing social media guidance, the development of a new guide, that can be used by any healthcare student group (uni or multi professional) and commentary on the value of a student lead research project which results in a learning resource, developed by students, for students.

1. Introduction

Social media is characterised by user generated content associated with internet based publishing technologies (Terry 2009) and is a growing global phenomenon. Common forms include chat rooms, blogs and social networking sites (SNSs) e.g. Facebook, Twitter. Social media enables users to construct and share materials which could demonstrate an individual's interests and skills whilst extending networks.

In the UK approximately half the population are Facebook members, accounting for over 30 million UK profiles (Socialbakers 2012). Although the use of social media transcends population demographics, a large proportion are students and new graduates between the ages of 18-24 (Quale and Taylor 2011). The positive uses of social media have been tempered by well publicised cases of online misconduct and negative media coverage (CSP 2010, MPS 2012).

1.1 Social media use: healthcare students and professionals

Inappropriate use of social media has led to increasing incidence of disciplinary action against staff in many healthcare establishments (Laja 2011). The majority of nursing boards in the USA have taken disciplinary action in response to complaints about nurses and student nurses violating patient privacy by posting confidential material on SNS (NCSBN 2010). In most cases social media misconduct is unintentional; however, consequences have led to employee dismissal and legal action (Aylott 2011, BMA 2011). Such instances of misconduct threaten the reputation of individuals, healthcare professions in general and the trust that the public has in them (Devi 2011).

There is a growing body of research into the underlying reasons for social media misconduct and more generally students understanding of the uses of social media (e.g. Heil 2011, Camacho et al. 2012), however, research involving healthcare studies is still relatively limited (with exception of: Garner and O'Sullivan 2010; Macdonald et al 2010; Fox 2012). Macdonald et al (2010) conducted a cross-sectional survey of 220 newly graduated doctors' use of social-networking via Facebook. Thirty seven percent of students were found to be at risk of bringing their profession into disrepute through highly personal and sensitive online content. This included membership of offensive groups and photographs depicting professionals drinking alcohol to excess. Many participants had not activated privacy settings (SNS features that restrict online visibility), such that all content was publicly

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accessible. The culmination of student/professional uncertainty in relation to issues of privacy, what comprises e-professionalism and expectations of conduct online there emerges the need for guidance (Cain et al 2009, Finn et al 2010, Aylott 2011).

1.2 Social media guidance for healthcare students/professionals

Social media guidance has been produced by a number of professional and regulatory bodies for healthcare students and professionals to support understanding about social media use and online behaviour (BDA 2008, BAOTCOT 2010, BMA 2011, CSP 2011, HCPC 2011, NMC 2011). The content of the guidance ranges from simple recommendations (HCPC 2011) to evidence-based information, explanations and advice (BMA 2011). Layout and writing style also vary from concisely written text paragraphs (BDA 2008, HCPC 2011) to more formal language (BMA 2011) and screen shots of social networking sites (BAOTCOT 2010).

As four of these documents are directed at both students and qualified professionals (BDA 2008, BMA 2011, HCPC 2011, NMC 2011) this guidance may fail to sufficiently explore key issues of specific relevance for healthcare students. Chandra and Chatterjee (2011) noted that guidance varied in quality and content, ranging from brief and lenient to the relatively overbearing. The variety of guidance and the branding by specific professions may mean that it is not perceived to be relevant to different groups e.g. would a student of physiotherapy appreciate the relevance of many of the messages in guidance written for doctors?

This raises concerns to whether current guidance is relevant, evidence-based and accessible to all healthcare students. The literature search identified a gap in research exploring students’ opinions of current social media guidance and its impact on their online conduct.

The aims of the study were: to explore healthcare students’ perspectives of current health professional social media guidance; to construct new social media guidance shaped by the views of those students, current guidance and the wider literature; and to evaluate the self reported impact or lack of impact of the new guidance following its dissemination to healthcare students.

2. Method

There were two elements of data collection: 1. two semi-structured focus groups which explored healthcare students’ views on currently available social media guidance were conducted, 2. new social media guidance (crafted by the four student researchers/authors and informed by the focus group findings) using a short questionnaire was piloted.

Ethical approval was granted by the Queen Margaret University (QMU) Research Ethics Committee. Written, informed consent was obtained from all participants. Data were stored securely with identifying features removed to protect the identity of participants.

Recruitment was conducted via an internal university email. Participants were third or fourth year healthcare students at QMU and deemed to be active users of social-media i.e. they self-reported using social media at least once per month. All participants completed a questionnaire capturing information about age, gender and healthcare discipline as well as information on the nature and frequency of their social media use. These data facilitated sampling of participants into one of the two phases within the study, ensuring that each phase had representation from a number of healthcare professional programmes and a mix of males and females.
2.1 Focus groups

Focus group participants were tasked with reading two social media guides (BMA 2011, HCPC 2011) alongside guidance available from their own professional body (BDA 2008; CSP 2010; NMC 2011; BAOTCOT 2010) prior to attending the focus group. The student researchers/authors had selected the BMA and HCPC guidance as examples of the best available at the time of the study. Focus group questions elicited students' views on the usefulness of the guides, format/style and any particular strengths/weaknesses. Each focus group lasted approximately one hour. Digital recordings of the focus groups were transcribed within 24 hours of completion.

2.2 Data analysis and creation of the new social media guide

Transcripts were thematically analysed (Boyatzis 1998) to inform the development of a new, student informed social media guide, reflecting focus group participants' preferences for content, layout etc. These findings were then integrated with the researchers' analysis and understanding of currently available social media guidance to produce text-based guidance specific to the needs of a mixed professional group of healthcare students.

2.3 Piloting the new guide

The newly created Social Media: A Practical Guide for Healthcare Students was subjected to individual feedback from two volunteer healthcare students regarding readability and comprehension and modified accordingly prior to piloting.

The new guidance was disseminated to participants either via email or through participant attendance at a drop-in session, were the researchers distributed hard copies of the guide. Participants were asked to read the new guidance before completing a short questionnaire designed to ascertain students' views on the guide and its possible impact or lack of impact on social media behaviours.

Questions included in the questionnaire: 1. Thinking about the guidance, can you briefly explain whether you found it useful or not? 2. Do you think that the guidelines have altered your view of social media in any way? If so please explain how. 3. Having read the guidelines - would you now consider taking any action regarding your online activity? Can you explain what you intend to do? Questionnaire responses were subject to simple descriptive analysis of content.

3. Findings

Twenty seven healthcare students entered the study; 24 (89%) female and three (11%) male. Two participants were third year students, the remaining 25 were in fourth year. Mean age was 22.7 years (SD 2.9). Students from five different healthcare programmes participated: 13 (48%) from physiotherapy, five (19%) from occupational therapy, three (11%) from speech and language therapy, three (11%) from dietetics and three (11%) from nursing.

All participants were active users of social-media; 26 (96%) used social-media at least once per day. Eight (30%) participants had previously received guidance regarding social media conduct; this mainly consisted of informal guidance from tutors. Two students had seen guidance from health profession bodies prior to this study. All participants stated that healthcare students needed guidance regarding the use of social media.

3.1 Focus group findings
Each of the two focus groups had six participants and were mixed in relation to healthcare programme membership. The following headings convey the key themes from the focus group phase of data collection.

3.1.1 A need for healthcare student guidance that is balanced and supportive

All participants stated that there was a definite need for social media guidance which was specific to their needs as developing healthcare professionals. Awareness of current guidance was poor and participants' appraisal of that guidance was that none of the guides presented an ideal balance of relevant and comprehensive information.

'Its [social media] is just a massive grey area.'

'I don't know where the boundaries are at all.'

The majority opinion was that guidance provided by the BMA (2011) was preferable to the other resources reviewed. Participants were positive about the BMA guide's depth of reasoning and the accessibility of its structured sections. Participants highlighted that the inclusion of case examples made the guidance engaging. Participants also liked the practical nature of the solutions for common problems encountered by social media users. Nonetheless, participants stated that the vocabulary employed by the BMA was overly formal and tiresome to read. It was reported that because the BMA guidance was written for medical professionals and trainees, it lacked a sense of connection with the non-medical readership.

The majority of focus group participants were critical of the remaining guidance documents for either being too brief and/or vague in content (BDA 2008, BAOTCOT 2010, HCPC 2011). Participants stated that these resources failed to provide adequate depth of explanation associated with the advice they offered.

'This one's [gestures to the HCPC guidance] just like basic bullet points and it doesn't... kinda give you the whole reasoning.'

However, participants expressed a preference for the writing style of these documents, perceiving that they were easier to understand than the BMA (2011) guidance. The majority stated the need to establish a 'happy medium' between all resources reviewed.

3.1.2 Guidance should be practical and engaging

Participants reported that future guidance should provide clear, reasoned suggestions for professional social media conduct along with engaging case examples and practical solutions. Participants also commented that the tone of the guidance should be relatively informal or at least presented in an easy to read manner. Participants outlined a number of key issues that the guidance should address:
Direction about what constitutes inappropriate social media content.
The (relatively) permanent nature of some social media content.
The issue of patients/clients seeking to befriend a healthcare student online.
How to best use privacy settings.

3.2 The researchers/authors development of the new guidance

Following focus group sessions, the four student researchers/authors reviewed the current body of healthcare social-media guidance. Researchers felt that a visually appealing layout such as that exemplified by the BMA (2011) would facilitate student engagement with guidance content. It was decided that a social media page 'screen shot' image, as used by
BAOTCOT (2010) guidance, could illustrate an online scenario. Researchers decided that new social-media guidance should include a reference list linked to further information.

The newly constructed guidance took the form of a five page, written guide, covering topics including: standards expected of healthcare students; potential risks/consequences of using social media; permanence of online content; social media privacy settings and managing friend requests. The document made use of relevant and recognizable case studies to illustrate important points. The content was specific to healthcare students and adopted an informal tone communicating practical social media advice.

3.3 Piloting the new guidance: questionnaire findings

Fourteen (52%) participants took part in the second phase of the study. These students reviewed the new guidance and completed a short questionnaire.

Questionnaire responses indicated that all participants found the new guidance useful and felt it was necessary for healthcare students to receive this kind of guidance. Twelve (86%) participants stated that they would now take action to change their online activity. Nine (64%) participants stated that the new guidance had altered their overall view of social media.

The following sections convey the key themes representing majority opinions from the written questionnaires responses.

3.3.1 Increased awareness and motivation to change behaviour

Most participants felt they had some previous understanding of the risks associated with social media. However, they stated that the guidance had enabled them to develop this understanding and encouraged reflection on social media use. The majority also reported that the guidance made them consider modifying aspects of their personal behavior related to social media. These changes included activating more stringent privacy settings, screening personal content for appropriateness and adopting a more thoughtful approach to managing patient/client friend requests. Participants also stated that this guidance made them aware of the permanence of some social media content and that participants would be mindful of this issue when posting in future.

‘They (the new guidance) highlight some points which I would never have thought of, one being that if you delete something it doesn’t necessarily mean it has gone completely - this is definitely something I am going to think about the next time I log on’.

Participants noted that the new guidance could play an important role in informing healthcare students of potential consequences of social media misconduct. It was also noted that the guide appeared to be balanced, presenting some of the benefits of social media use.

‘I’m glad that the guideline didn’t completely focus on the potential pitfalls of using social media but also highlighted some of the benefits it may offer, giving a balanced view.’

Participants stated that the guidance would benefit healthcare students attending practice placement who might not have thought through the real life consequences of breaching professional boundaries through communication via social media. Participants reported that the guidance conveyed how the careless or thoughtless use of social media can also cause problems regarding future employment.

3.3.2 Having guidance sooner rather than later
The majority of participants emphasised that students should receive this kind of guidance as soon as possible. Participants commented that early guidance might encourage incoming healthcare students to avoid posting inappropriate content that could have a negative impact in later years. They proposed that the impact of the guidance may be greater if it were used periodically throughout the duration of their programmes; thus helping to, ‘get students into a habit of ensuring professionalism at all times’. Participants also suggested that the guidance must be regularly revised in order to remain up to date with the ever evolving nature of social media.

4. Discussion

The student participants demonstrated high levels of social media usage with 96% engaging with social media at least once per day. It is interesting to note this frequent use coupled with a consensus statement on the need for social media guidance and the finding that only two had previously accessed published guidance prior participation in the study. Although a number of social media guides are available for health professions/students they tend to be profession specific and are disseminated through professional bodies, which may only reach those students who have professional body membership. Guides tend to be written for particular professional groups, potentially alienating or failing to appeal to other health profession members, health professionals who often share a common set of standards of conduct and ethics.

Bringing student scrutiny to the fore in the focus groups and by mixing the health profession groups demonstrated that the common ground of being a student and an emerging health professional were uniting features. Students found value in all elements of all of the existing guides, irrespective of their intended audience, but did not perceive that any had the right balance between content, tone and format. The development of a guide that is deemed relevant by a mixed group of healthcare students supports the possibilities of integrating the material in inter-professional education modules or those accessed by different student groups.

The new Social Media: A Practical Guide for Healthcare Students elicited a positive response, with all participants commenting that the new guide was useful, readable and needed. Eighty five percent stated that they intended to change aspects of their behavior related to their use of social media. This outcome was more pronounced than that reported by Cain et al (2009), one of the few, relatively comparable studies, who reported that 52% of 244 pharmacy students stated an intention to change online behaviour following a lecture on social media guidance. It is notable that the sample size in the current study is significantly smaller than that of Cain and the relationship between student-project / student-participants (in the current study) may have introduced bias. However, it may be that the product, produced by students, for students did indeed engage them in a way that would not occur without their central role. The wider issue of what the student-researchers brought to the process and ultimately the outcome (the guide), this is worth considering further.

Reflections of the supervisor

The supervision process for the group was no different from other final year projects, however, it was notable how engaged the student-researchers were in all elements of the process. Having initially been concerned that the topic was not linked to physiotherapy management or assessment issues; appearing to more associated with issues of professionalism, there was a degree of concern, at most disappointment from some members (this type of topic never scores highly on students rating of most wanted project title). However, having read the literature in the area and understood the ‘gap’ which their project could fill set the group on a trajectory of excited enthusiasm for the task in hand.

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The most striking element of the project is the product or the new guidance document. It does not resemble something which I, or perhaps my colleagues, would have generated. It is characterised by being a degree humorous, light on text, pages punctuated by images and icons, and examples of experiences from other students, all presented in an informal but supportive tone. The next question was, how would this be received by other cohorts of students, would it make an impact?

Six months after the study concluded the guide was used to support a session for third year students on professionalism and issues related to practice placement. Materials were also used to help illustrate a session linked to employability and the benefits of social media in enhancing profile. Anecdotal evidence from the events, from tutors and staff indicated the guide material was well received, however, longer term follow up, in forth year indicated that less than half of students were confident in their knowledge and understanding related to the use of social media.

There are multiple reasons for students not being able to recall past learning events and demonstrate the knowledge they had, superficial engagement with the materials, lack of opportunity to apply the new knowledge, lack of ongoing feedback and integration of the materials at future dates and in new, applied settings. In response to this, in September 2013 the physiotherapy programme will see the introduction of social media guidance into multiple levels of the programme, including modules on professional development and conduct, employability, practice placement communication and interaction. The guide will be used as trigger material for tutorials and student centered learning activities.

In a wider context a small team from health, drama and performance and sociology are meeting to develop the guide into a resource that all students (not only healthcare students) would find engaging and useful. The most important element being to involve students from the beginning to ensure the guide does not move to being shaped by academic staff, diluting the elements which the students found to be most vital.

**Reflections of the student researchers**

All students noted a significant impact related to the study on their own awareness of the positive and negative influences of social media, potentially shaping their careers and employability, how they were perceived by others and how their new knowledge influenced everyday interaction with social media. Two of the students, now gradates have provided their own written accounts on the lasting impact of the project work. These are presented in their own words.

**Account One**

"The relevance of the project became surprisingly apparent at my first graduate job. I was working as an intern at the office of one of the physiotherapy special interest groups, when I was tasked with developing a guidance document to assist members with using social media safely and professionally. This demonstrated to me the significance of this issue to working professionals as well as a student population - many of the members were contacting the head office feeling unsure about whether they should even be using social media, and if so, how could they do so safely and even take advantage of the many benefits that are possible through the use of social media. This project differed in its intended audience and overall tone of the document and aimed to encourage professionals to promote themselves and their practice using social media; however, the underlying theme of uncertainty when using social media was clear. My previous experience and involvement in researching forms of guidance as well as my knowledge regarding social media greatly contributed to my creation of this guidance for the company to adapt as they saw fit. The need for such a document in my opinion demonstrates that not only is this an issue for younger generations and students.
but also working professionals. Additionally this project has undeniably had a lasting effect on my personal behaviour. I question what I post online to ensure it does not appear inappropriate or reflect badly on myself. I do this automatically and habitually; I believe this is proof that my behaviour and opinions have been irrevocably altered through this project.'

**Account Two**

'Before taking part in this study, I believed that I had a good knowledge of social media and was always conscious of my online activity. In many cases, I would notice the activity of friends', especially if I felt it was inappropriate content to be displaying so publicly and strongly believed that it was purely "common sense" to behave appropriately online. In my opinion, my online content was perfectly acceptable and didn't worry about the negative consequences recently been reported in media. However, the whole process of the study has taught me a great deal about social media and people's perceptions of one another.

During the focus groups, it became clear that although most students shared my belief that this was purely a matter of common sense, everybody appeared to have very different views on what exactly would be appropriate content. Some people's idea of appropriate content was viewed to be unacceptable by others, especially when this content (pictures, status updates etc) were being viewed out of context. This made me question my own activity more and I now question whether others could misjudge my online activity as inappropriate when viewed out of context. … I have modified my security settings .. I now make sure I never discuss anything work related as I think this makes it easier to control the "blurring" between the professional and personal, an area which I have learned to be the key factor in contributing to negative consequences. .. In addition to changes in my online activity, I also am now very aware of things I discuss when out in public as I have learned that blurring the lines between professionalism and personal life in a public environment can also result in very similar consequences.

Conducting the study not only taught me about social media but the process as a whole also has developed skills such as organisation, communication, listening and analysing information. As social media sites are growing in popularity, most participants had lots to say about their own experiences and often the focus group discussion would fall off track. As there was only limited time, we had to listen closely to what participants were saying whilst ensuring that the discussion was brought back to the key points of focus so that the information required for developing new social media guidance could be gathered. Two hours of focus groups provided us with a mass of information, however, our aim was to make the new guidelines as short and as concise as possible. Because of this I feel I have really developed my skills in analysing information as we spent lots of time abstracting only the points that conveyed a strong message, making our guidelines more engaging. Having four members in our study group was often challenging as many of us would have differing views on how information should be generated or what points should be included in the guidelines. Through this I feel I developed my team working skills by listening to others ideas and often negotiating and rearranging our plan in order to come up with a set of guidelines that we were all happy with.

Revisiting this study after a period of time and reflecting on the whole process has been very worthwhile and has made me realise how much I have learned about social media, perceptions of others, inappropriate online behaviour and what is required to minimise this in the future. Since graduating and beginning work as a physiotherapist, I feel fortunate to have had the chance to explore this topic more and realise that this is a massive issue, not only for healthcare students/professionals, but for all individuals who have online profiles.'

**5. Conclusion**
This study has achieved its aims and despite a relatively small sample size the development of guide for healthcare students who use social media or would like to start using social media is a positive step towards evaluation of the most effective way to use the guide and/or develop related, student focused learning materials. Previous research has established that students and professionals require social media guidance; however no literature was found concerning healthcare students views on such guidance. This study attempted to fill this gap, to a small degree. The findings demonstrated that no single, pre-existing social media guide had content and format that matched students’ needs. The development of the new Social Media: A Practical Guide for Healthcare Students elicited encouraging responses from students, suggesting the guide may be influential in directing students' online behaviours, in a way that promotes a positive image of self, as a student and an emerging healthcare professional.

References


Devi, S. 2011. Facebook friend request from a patient? Widespread use of new technologies such as social networking sites are creating ethical problems for physicians that some doctors' organisations are beginning to address. *The Lancet Medical Journal*. (377), pp. 1141-1142.


Garner J., and O'Sullivan, H. 2010. Facebook and the professional behaviours of undergraduate medical students. The Clinical Teacher. 7 (2) June pp112-115


Extracurricular Strategies to Teach Innovation

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ABSTRACT: Within the ALFA program framework, supported by the European Commission, The KickStart project, coordinated by the Glasgow Caledonian University has focused on the study of Latin American environmental characteristics regarding innovation. Therefore, Tecnológico de Monterrey’s Centre for Research in Education proposed to carry out the study about experiences, strategies, and actions to enable the consolidation of both academic and extracurricular training activities for professors with an innovation approach. A quantitative approach was adopted; the sample included the nine Research Chairs with the term "innovation" in their name. Through the questionnaire designed for this study and the members of the Research Chairs, results show that the extracurricular strategies were: Communication generated through the contact with the students; Feedback of the researching lecturers that are part of a Chair; and Active teaching and learning methods and the participation of the students in the laboratories and research projects.

1. Introduction
Science, technology, and innovation are essential ingredients to boost sustainable development processes in all nations. The active search for new opportunity areas has created an urgent need for scientific, technological, and educational innovations that can be adjusted to both business and governmental policies and practices (UNCTAD, 1999). Several studies show that innovation plays a leading role in the social and economic processes in the knowledge-based economy. Within an "innovative context", if the countries wish to face the challenges globalization sets, they are obligated to encourage new skills and to train its citizens. Also, the participation of Higher Education Institutions (HEIs) is essential. Innovation is the fulfillment of a series of steps related to training, qualification, motivation and encouragement, since it establishes the conjunction of the conceived idea and the finished product; it transforms knowledge into individual, collective, regional and national economic benefits.
In Mexico, the Science and Technology Law explicitly introduces the concept of innovation as: "To generate a new product, design, process, service, method or organization or adding value to those already in existence". Nevertheless, this concept might seem easy; it is very complex, since it must consider many social and educational factors. According to Edgar and Grant (2009), the conceptual theorists categorize innovation into innovation of products and innovation of processes. They conclude that the architecture of innovation is the knowledge of the elements in the environment, and how these can be adapted together. Indeed, administration of innovation represents a challenge to organizations. Despite the topic’s recent boom, there is still no solid theoretical base to study the administration of innovation. During the closing ceremony of the 2009 World Conference on Higher Education (WCHE), it was said: "At no time in history has it been more important to invest in higher education as a major force in building an inclusive and diverse knowledge society and to advance in research, innovation and creativity". Regional and international cooperation in research and innovation emphasizes and intensifies lecturers’ professional development through initial and permanent training to provide individuals with the knowledge and skills they need in the 21st century. It is fundamental that learning, research, and innovation are closely linked to educational systems, especially the higher education systems, to achieve innovation sustainability and to meet the knowledge based society’s demands (WCHE, 2009).
Within the ALFA program framework, supported by the European Commission, the KickStart project has focused on the study of Latin American environmental characteristics regarding innovation. It has generated information that highlights the need to strengthen professional development training to face social, political, and economic problems in this region. The KickStart network consists of 9 HEIs of several Latin American and European countries; the
Centre for Research in Education (CRE) actively participates on behalf of Tecnológico de Monterrey. Through educational research activities, KickStart wanted to consolidate a cooperative network to exchange good practices that would contribute to the development of professionals able to manage innovation. To deeply analyze the results obtained with KickStart, CRE proposed to carry out the study: *Innovation in Practice and on Innovation*. Its purpose was to generate awareness of the nature of innovation in order to strengthen its teaching-learning processes. Research intended to create collaboration among the partner institutions so Higher Education quality could be improved with tools, strategies, and actions that will enable the consolidation of both academic and extracurricular training activities for professors with an innovation approach.

### 2. Theoretical framework

Educational institutions tend to be static by nature; keep accepted practices; resistant to changes (Miranda, 2002). HEIs have still not achieved significant progress in relation to teaching-learning innovation strategies. Usually, there have only been adjustments in the curricula (Alemán, 2010). While “teaching innovation”, it is necessary to transcend the cognitive domain of academic subjects; this implies promoting new pedagogical and didactic methods to enable the acquisition of: techniques, communication abilities and skills, creativity and critical analysis, independent thinking and teamwork in multicultural contexts. The UNESCO (2009) emphasizes that **Higher Education Institutions have become the major figures in global change processes, widely contributing to economic and technological growth**. Organizations must rely on competent staff with an innovative vision and who therefore has the minimum knowledge and skills to come up with new methods or technologies. Amidon (1997) reiterates that innovation, being part of the strategy to transform organizations and to compete in a knowledge-based society, is a dominant factor in competitiveness by making the most out of new knowledge. Then, understand the nature of innovation better, would make its teaching-learning processes easier. Our “global society” demands from universities a more proactive role that includes the enhancement of curricula based on knowledge competences and labor skills (Alemán, 2010). Today’s world is characterized by ceaseless and unexpected changes where traditional universities do not fit. Transformation and modernization of societies, urge universities to add innovation tools and processes to achieve substantial and integrated changes (Casas, 2005).

#### 2.1. Extracurricular strategies for teaching innovation at Tecnológico de Monterrey

Since its foundation, the Mexican university Tecnológico de Monterrey has implemented a continuous innovation process intended to meet the educational demands that arise from social, economic, labor, scientific, and technological changes as well as the country’s development challenges. In its organizational vision 2015, states to be the most recognized Higher Education institution of Latin America due to the leadership of its graduates in the private, public, and social sectors; and the research and technological development carried out to encourage a knowledge-based economy, generate management models and business incubators, and create models and innovative systems for the community sustainable development. The mission of Tecnológico de Monterrey is to educate upright and ethical individuals, with a humanistic sense; internationally competitive individuals in their professional field, also committed to the economic, political, social and cultural development of their community and the sustainable use of natural resources.

Through its educational programs and activities regarding research and development, Tecnológico de Monterrey educates people and transfers knowledge to: a) Promote international competitiveness of companies based on knowledge, innovation, technological and sustainable development; b) Develop management models for companies to compete in a globalized economy; c) Create, introduce, and transfer models and incubator networks to generate new enterprises; d) Collaborate in the professionalization of the public administration; e) analyze and suggest public policies for the country’s development; f) Contribute to the sustainable development of the community with innovative models and systems to improve its educational, social, economic, and political aspects. To achieve such goals and contribute to the country competitiveness, Tecnológico de Monterrey has created research centers, like the ones in the fields of biotechnology and health studies,
manufacture, and information technologies. Also, it has promoted among its researchers to become members of the National Researchers System; the patenting of most of new knowledge; and the creation of new enterprises and labor sources. As well, taking as a reference research teams who work on a specific line of investigation in the most important universities of the world, Tecnológico de Monterrey started in 2002 its own research model, which it called Research Chairs.

![Figure1. Research Chairs model](image)

Research Chairs are groups of researchers set up with a senior lecturer, appointed lecturers, PhD, master and degree students, and post-PhD researchers; they aim to: a) Contribute to the positioning of Tecnológico de Monterrey as a university of education and research; b) Develop research in the strategic areas stated on the organizational vision 2015; c) Encourage the growth of the PhD programs; d) Promote the training of researchers at PhD, Master, and Degree levels; e) Increase the publication of books, articles in indexed journals, and scientific articles to be presented at conferences; f) Strengthen the educational model of Tecnológico de Monterrey and its impact on the education offered to its degree and higher education students, in addition to the postgraduate students; g) Develop a culture of invention and use of scientific knowledge through patents, development of products and methodologies, and the provision of scientific and technological services; h) Impact on the economic development of the institutions through patent licenses and the provision of research services to companies and institutions; i) Encourage the creation of technology-based companies; Reach the sustainability of research.

Another important feature of this model is the focus of research, which involves shaping and providing content to each of the strategic lines of investigation by identifying the disciplines within them. Therefore, scientific topics are selected for the corresponding subjects in order to develop them through research lines and projects (Cantú, 2009). This way, human, physical and financial resources are better administrated resulting on greater continuity and benefit for the community.

Research Chairs must work on lines of investigation aligned with the strategic areas of research (ITESM, 2008). In order to select one of them, the following contextual elements must be taken into consideration: International tendencies of the study field; Pertinent research areas for the development of the host campus region; Institutional strengths in the field of study, including availability of researchers. The Office of Research and Technological Development (ORTD) is responsible for outlining the strategic research areas. These can be modified according to the periodical review of the Tecnológico de Monterrey mission (see Table 1).

<table>
<thead>
<tr>
<th>Strategic areas of the mission</th>
<th>Number of research Chairs</th>
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<tbody>
<tr>
<td>Biotechnology and food</td>
<td>5</td>
</tr>
</tbody>
</table>
Health 5
Manufacture and Design 10
Mechatronics 7
Nanotechnology 6
Information and communication technologies 20
Sustainable development 9
Business 16
Entrepreneurship 3
Governance 8
Social Sciences 13
Humanities 8
Regional development 6
Social development 3
Education 4
Total 123

The performance of the Research Chairs is evaluated periodically. It is the ORTD who issues the evaluation policies (ITESM, 2008). The elements to be evaluated are: a) Peer reviewed publications; b) External acknowledgements; c) Professional development; d) Obtaining of external resources; e) Professional relationships on campus; f) Professional relationships with lecturers form other campuses; g) Contribution to the creation of new business and entrepreneurial activities; h) Participation in institutional projects; and Others. The Research Chair evaluation combines qualitative and quantitative elements. The ORTD publishes the quantitative elements. Qualitative elements consider: Academic quality of research; Intellectual production; Academic, economic, or social impact; Coherence with the institutional research strategy. Regional committees would carry out the Research Chairs evaluation. A member appointed by the ORTD must participate in each evaluation committee (ITESM, 2008). Thus, the Research Chairs should relate to the institution’s educational programs and influence their academic quality and assessment processes.

3. Methodology
A quantitative approach was adopted to generate information about the Research Chairs that promote innovation. For Gomez Zermeño, (2009), quantitative approach follows a logical criterion that guides the process. It is a closed design, which pretends to be reproduced in all its dimensions. Its model is algorithmic, where all can be controllable. It uses techniques like counting, measuring, and using abstract reasoning. It is also of greater use for social systems and global mediums, since it has a positivist approach. It looks for the causes of social phenomena, hardly paying any attention to the subjective states of the individual, by using a closed model of logical deductive reasoning.

3.1. Design of research
Non-experimental research was proposed when considering the characteristics of the study, since the independent variables are not able to be manipulated; there is no direct control or influence over them because they already took place, and so their effects. Non-experimental research is a watershed for a great number of ex post facto studies, which is used as a strategy to obtain the required information, without having to build any other situation (Mertens, 2005). It was also proposed to compile all the data in a single moment; therefore, a cross-sectional, exploratory, descriptive design was selected. Exploratory studies try to know more of an unknown topic, providing information to carry out descriptive studies where a phenomenon and its various components are analyzed in depth. Point out that cross-sectional/exploratory designs are applied to new or hardly known research studies.

3.2. Social-demographic context
In average, the population above the age of 15 in Nuevo León (Figure 2) has a superior schooling average of 9.8 years while in the rest of the country is 8.6 (INEGI, National Statistics Institute, 2010). The state also has one of the higher levels of literacy. It’s
government wants to achieve a life-long learning education of quality; equitable, comprehensive, pertinent, inclusive, and innovative, which would train citizens committed with a knowledge-based society and the sustainable development of the community (Nuevo León Department of Education, 2010).

Figure 2. Nuevo León’s location

3.3. Monterrey, International City of Knowledge (MTYCIC)

In compliance with the Law for the promotion of knowledge-based development, the Innovation and Technology Transfer Institute (I2T2) was created in 2005. I2T2 is a public decentralized organism with its own legal personality, budget and resources, responsible of organizing, managing, and carrying out the MTYCIC governmental initiative.

Figure 3. "Monterrey, International City of Knowledge" 25 years plan

Its mission is to promote and apply research and technological development into markets to generate economic growth in the state (MTYCIC, 2010). I2T2 seeks to encourage the transfer and generation of new products, processes, and services as well to promote and strengthen research networks and boosts an innovation culture. Its purpose is to turn science and technology into wealth and wellbeing that would rely upon the construction of an infrastructure, networks, and alliances to detonate a knowledge-based economy (Figure 3).

3.4. Population and sample

Currently, Tecnológico de Monterrey Research Chairs model consists of 123 research groups that work on 15 strategic areas. The Research Chairs with the term “innovation” in their name were included in the study: a) Engineering Design and Innovation; b) Design and Manufacture Innovation; c) Innovation in optical communication systems; d) Research and innovation on computational security; e) Bioinformatics research and innovation; f) Development and innovation of housing processes and technology; g) Technology Innovation; h) Educational and Technology Innovation; and e) Wealth Creation through innovation, technology and knowledge.
3.5. Research tools

The use of questionnaires provides certain advantages, since a wider image of the studied phenomenon can be obtained. They may be the most used tool to gather information and consists of a group of questions regarding one or more variables to be measured (Hernández et al., 2006). For Giroux and Tremblay (2008), the interview helps the researcher understand the reference framework of the interviewees. Therefore, in order to study in depth the understanding of the ideas associated with the concept of innovation, a semi-directed interview was applied to the leading lecturers of the Research Chairs. Based on the "Management model of and for the innovation process" (Figure 4) proposed by Edgar and Grant (2009), the questionnaire designed for this study comprises the following sections: Section 1) "Management for and of the innovation processes", explored 14 variables through 50 closed questions that provided information on: Knowledge of the market, Conscience of the environment, Sensitivity, Discernment, Interaction of innovation, Learning and development, Knowledge transfer, Infrastructure, Commercialization-Entrepreneurship, Groups-Networks, Professionalization, Impact and metrics, Impact and standards, Feedback-Monitoring. Section 2) "Management of and for the innovative talent", explored 8 variables through 35 closed questions, which provide information on: Creative talent, Tools, Context, Citizen sense of belonging, Innovation ability, Benefit of the innovation, Innovation capacity and innovation leadership.

![Figure 4. Management model of and for the innovation process (Edgar and Grant, 2009)](image)

4. Analysis of results

All quantitative tools were electronic self-managed questionnaires developed with SurveyMonkey. The qualitative interviews to the leading lecturers were done in person and through videoconference. The extracurricular strategies applied in the Research Chairs were also questioned during the interviews carried out with the leading lecturers.

Management for and of the innovation process

It was found that the Research Chairs react, both in the short and medium term to the opportunities and needs that arise from the environment; only a minority admitted to react in the long term. Interviewees considered that they are well informed and recognize the leadership of the senior lecturer. The Chairs Members (CM) mentioned that have available mechanisms for learning, development and management of innovation projects; the successful experiences in innovation are shared within the research groups. Although there are mechanisms for knowledge-management that allow to share, polish, develop, and adapt ideas, knowledge, and learning; most of the members of the Chairs mentioned that they do not know if there are mechanisms to enable the transfer. In relation with the physical resources, enabling processes, and policies adopted by the chairs; the majority stated that human resources, technology, and mechanisms are the most important infrastructure elements for the transfer of knowledge. Referring to the activities that enable the transfer of
the innovation into the market for commercial gain or a common good, it was stated that there are institutional, state funds, and other funds or foundations that finance innovation.

- **Knowledge of the market**: Concerning the monitoring of the market, 46.6% state there is one person in charge of monitoring the markets and 12.6% that there is a department responsible for doing so. Nevertheless, 34.0% mention that the markets were not measured. It was also noticed in the results that the members of the Research Chairs considered that by priority, the international markets were monitored first, followed by the national, regional and institutional. It is interesting to observe how the local markets are mentioned the last.

- **Conscience of the environment**: As for the perception of the market's interconnections and the potential impacts of change, the CM declared to be very well informed on the research activities and consider that the leading lecturer is in charge of providing information on the opportunities and needs that emerge from the environment.

- **Sensitivity**: Regarding the degree in which the changes can be noticed and the temporality of perception, the majority declared that the Chairs reacted both in the short and medium term, thanks to some factors for prompt reaction, to the opportunities and needs that emerged from the environment; only a minority pointed out that they reacted in the long term. About 7% of CM considered that it is innovation capacity which allows a prompt reaction, followed by 6% who consider that it is the knowledge of the market and 5%, leadership. Only 3% think it is the training of professionals to adapt to changes.

- **Discernment**: In relation to the acquisition of changes in the market and the perception of the potential impacts and opportunities, the Chairs essentially look for and use technologies to monitor the markets, in addition to the analysis of patents. They admit not to use tools to monitor client relationships due to a lack of knowledge.

- **Interaction of innovation**: Interaction boost innovation processes, but it involves the recognition of the relevance of available tools and techniques and how to use them. Chairs admit that the leading lecturer guides the interaction and feedback on the processes. Members declared there is not enough encouragement or acknowledgement for innovators.

- **Learning and development**: Learning is a part of the innovation process that supports, develops and fuels innovative talent through a reflective activity. It was found out that Chairs have mechanisms for learning, and the development and management of projects. They declare that successful experiences in innovation are shared among research groups, but 50% is not aware if there are indicators to measure the effectiveness of teaching innovation.

- **Knowledge transfer**: Although there are knowledge-management mechanisms for ideas, knowledge, and learning, almost nobody knows if research results are actually transferred in a local, regional, national or international level, yet, the local transference was listed last.

- **Infrastructure**: Concerning the physical resources, enabling processes and policies taken by the Chairs, the CM state that the human resources and technology are the most important infrastructure elements for the transfer of knowledge. The institution manages the tools and infrastructure to teach innovation for its promotion and the training to develop innovation abilities.

- **Commercialization/ Entrepreneurship**: When referring to the activities that enable the transfer of innovation towards the market for commercial gain or a common good, most members state that there are institutional, state, and other funds or foundations that finance innovation. Chairs provide support to promote the commercialization of innovation and that these processes are essentially supported by incubators’ networks.

- **Groups-Networks**: The relationships between networks boost the sustainability of innovation through the operation and development of complementary groups of innovators and/or implementers. Most members of Chairs know the internal networks, but few know the innovation networks there are in their area/region, either governmental or private. They consider that the most valuable aspect of a network is the integration in multidisciplinary groups, the establishment of alliances, and the development of strategies and products.

- **Professionalization**: Although Chairs do support innovation institutionally, 61% of members do not know if there are indicators to measure the knowledge and professional and managerial abilities required to support commercialization, development and expansion of ideas.
- **Impact and metrics**: About the actions to measure the impact and contribution of the innovations, most of the Chairs members declared it should be measured at an international, national, institutional and regional level.

- **Impact and standards**: To establish impact indicators in the innovation processes implicates considering the level to be achieved and establishing maximum standards. Most Chairs’ members declared that they do not know the indicators used to measure the impact of innovation on the chairs and some even state that they do not exist.

- **Feedback-Monitoring**: For the CM, the feedback reflects the dynamic nature of innovation and learning, allowing the continuous improvement of the value provided by the enabling agents, which in the end is translated in an improvement of the results in their different spheres and in relation to the different interest groups.

**Management of and for the innovative talent**

The Management of and for the innovative talent model, shows the need to establish feedback and assessment points among its elements. When questioned on feedback within the Chairs, it was mentioned that it must be aimed at the members, the institution, and organizations. It is important to point out that again, the local level was left behind. The need to extend innovation to how it is taught, beyond the traditional curricular techniques and tools was emphasized. It was recognized that to manage innovation processes, a leader lecturer has to be creative and should have talent, vision, and clear goals; everyone expects support and advice, to receive technological and financial resources, or just openness and acknowledgement.

- **Creative talent**: The CM had different believes regarding creative talent, some considered it might be originated by the context, at school, within the family environment, during childhood, or that it is a talent you are born with. They also mentioned that creative talent can be strengthened through knowledge, extracurricular strategies, academic strategies, and inter-institutional strategies. They expressed that an innovator must develop some abilities such as: identify opportunities, detect needs, generate and implement ideas.

- **Context**: Context is described as the diverse situations that provide a group of differentiating characteristics. Chairs mention the context is very important to promote innovation and that it is easy to transfer innovations between different contexts.

- **Sense of belonging**: The sense of belonging is associated with the collective sphere, the identity, and feeling that bring them together. Most of the CM declared to be aware of belonging to a research group, and also to know the innovation expectations of their colleagues.

- **Innovation capacity**: When questioned on the way in which the competences for innovation can be developed, most of the members preferred the participation in projects, activities within networks, communities and groups, together with curricular strategies. A smaller number of members mentioned extracurricular strategies or other means.

- **Benefit of the innovation**: In relation with the techniques or tools used to measure the benefits of the innovations that are created within the Chair, most of the members say they do not know if they exist. But out from those who are aware of them, they select them according to the situation, the institution’s recommendation, because they are familiar, or according to the team’s choice. Decisions are generally made upon the benefits to be achieved, the set goals, the activities to be developed, or the team’s choice.

- **Innovation capacity**: Regarding the capacity to correctly select tools and techniques that align with their talent, abilities, and expected results, the CM considered that it is necessary to develop a specific culture to improve their innovating effectiveness. They considered that an innovation culture could be developed through participation in projects; activities within networks, communities and varied groups; through curricular strategies; and by teaching innovation beyond the traditional curricular techniques and tools.

- **Innovation leadership**: Although there are many varied styles and profiles of leadership, Research Chairs model recognizes that a leading lecturer is key to boost research and innovation processes. All members of Chairs believe innovation can be led by creative and inventive individuals whom should have talent, vision, mission and goals.
Conclusions

When teaching innovation, it is necessary to go beyond the cognitive domain of the disciplines. This involves promoting the use of new pedagogical and didactic methods by the lecturers, enabling the acquisition of techniques, abilities and capacities for communication, creativity and critical analysis, independent thinking and teamwork in multicultural contexts. Creativity is developed to be combined with knowledge, traditional wisdom, science, and advanced technologies. Among the ideas that emerged from the interviews with the leading lecturers, it was corroborated that innovation is composed by a series of elements like: the needs from the environment, openness to change, research, creativity, knowledge, problem solving, observation capacity, systemic thinking, competitive intelligence, and technological prediction. The elements for innovation that support the Chairs are communication and teamwork, being able to apply innovation, and design of methodologies. Results corroborate Edgar and Grant (2009) ideas such that innovation concepts refer to "new" products or processes, usually adding an advanced dimension of innovation speed; that categorizing innovation has created a considerable debate in order to distinguish between innovation of products and innovation of processes; and that in essence, the architecture of innovation is the knowledge of the elements of the environment and how the elements can blend together.

Management of and for the innovation process

In the knowledge-based economy, recognizing the market opportunities entails identifying the changes. Yet, the study of innovation is still incipient and therefore the creation of models that manage its processes and adapt to the new changing environments is a big challenge. The Monterrey, International City of Knowledge represents a great alliance that looks forward the promotion of Nuevo León’s economic and social development though innovation. It is interesting to observe how the members of the Research Chairs monitor with priority the international markets, the national, regional and institutional, leave the local markets at last.

Nevertheless, some also pointed out that there are no funds available. In the Research Chairs model, the groups or networks are organized according to their areas of knowledge, specialization to realize collaborative work. Only few members of the Chairs admitted not to know how they are organized. Although institutional support is provided to boost innovation, it is also reported that most Chair participants are not aware if there are indicators to measure the support to innovation. When questioned on the use of the indicators to measure the impact of innovation, the majority admitted not to be aware of them. They pointed out that the measurement of the innovation must impact at an international, national, institutional and regional level, mentioning the local level at last.

Management of and for the innovative talent

The members of the Research Chairs declared that it is possible to identify and develop creative talent within a context, at school, in the family, or during childhood. Only a small group asserts that one is born with the creative talent. Although the use tools and techniques to strengthen the teaching of innovation are mentioned, there are also some Chairs that declared not to use them in their didactic activities. Context is key for innovation, the chairs members stated to be aware of belonging to a research group, and also, to know the innovation expectations of their colleagues. When questioned on the way in which the competences for innovation can be developed, most of the members preferred participation in projects, activities within networks, communities and groups. In relation with the techniques or tools used to measure the benefits of the innovations that are created within the Chair, most of the members expressed not to be aware of them. Regarding the capacity to correctly select tools and techniques that match their talent, abilities, and expected results, members of the Chairs considered that it is necessary to develop an innovation culture to improve their effectiveness while innovating.

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Staff/Student Enhancement and Innovation within Cross Media Erasmus Intensive Projects

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ABSTRACT: The Intercultural Design Camp is a collaboration between the Schools of Creative Practice of four European higher education institutions. The basic concept of this Intensive Programme is to bring together students and teachers from the different nations to work together on a given theme, using creative collaborative briefs, set by external cultural and industry partners, to develop and produce multimedia solutions and artefacts. In this paper we will examine enhancement opportunities and subsequent approaches to Learning and Teaching, Assessment, Feedback and Dissemination within an Erasmus Intensive Project utilising collaborative cross-media interdisciplinary practice; this will especially cover the following key points:
- The use of Virtual Learning Environments in International communication
- External collaborative partnerships and cross-cultural opportunities
- Cross-media synergies and pedagogical partnerships
- Products, outputs and dissemination
- The impact of the Intensive Programme on curriculum development.
- Future staff and student exchange opportunities.

INTRODUCTION AND BACKGROUND OF THE ICDC PROJECT

1.1 Introduction

The Intercultural Design Camp (ICDC) is a collaboration between the Schools of Creative Practice of four European higher education institutions: The University of the West of Scotland; Linköping University, Sweden; Stuttgart Media University, Germany and Artevelde University College Ghent, Belgium. The ICDC was piloted in 2009 in Munsingen, Germany as a one-week summer school. Working to a given theme, using creative collaborative briefs, set by external cultural and industry partners, student participants develop and produce multimedia solutions and artefacts. A second, self-funded pilot was held in Dumfries, Scotland in 2010. The thematic focus of this delivery was again to strengthen internationalization by increasing student and staff mobility through the participation in cross national project teams.

The success of these two pilots led to an application for funding within the EU ERASMUS Intensive Programme. As a result of the successful bid a third, two-week Design Camp, took place in Grebbestad, Sweden in August 2011. Further ERASMUS funding allowed for a fourth ICDC in Kemmel, Belgium in August 2012 and a fifth is planned for Pforzheim, Germany in 2013.

The overarching theme of the three year funded project has been the interrogation of cross-cultural identities. As well as staff and student enhancement through international activities, the ICDC project has encouraged curriculum development at undergraduate and
postgraduate level and has informed module development in International and Collaborative projects at each partner university. For further information and examples of student project work please refer to the ICDC website www.designcamp.eu.

Background

One of the primary motives of the Summer School was to enhance student and staff mobility; therefore the composition of student and staff has been a crucial issue. This holds especially true for the ICDC, because of its' project based approach. Core and visiting lecturing staff represented disciplines as diverse as Information Design, Graphic Design, Fine Art, Web Design, Film Making, Photography, Application Design, Communications, Languages, Computer Science and Engineering, Environment and Tourism studies. All possible fields of cross-media productions could be covered by at least one staff member. The four partner universities cover a wide area of study programmes. Each university has a different thematic focus and the students have represented as diverse programmes as Art & Design, Multimedia and Digital Design, Graphic Design and Visual Communication, Information Design, Photography and the Moving Image, Film making, Screen writing, Script writing, and Journalism. The challenge was to compose teams that represented as much variety as possible and ensure that opportunities for collaboration and joint working across such specialisms were given.

The selected students from the different partner universities are from first cycle programmes. All applicants had to be at least in the second year of their programmes to ensure that they held basic skills, which could then be developed and intensified throughout the Design Camp. In order to be able to realize a selection process that met the above-mentioned criteria, the students had to write a letter of motivation and had to fill in an application form. Each partner university formed a jury that selected the participants from their institution. By this procedure a balanced representation from the four partner universities was assured and prior knowledge and understanding of student's media background and skills was utilised.

2 The Use of Virtual Learning Environments in International Communication

One important aspect of the project work during the Design Camp is that it covers a rich spectrum of production processes. Since two weeks are a rather short period of time for that, it is crucial that the students could start with their project work from the beginning of the camp. This implies that every student team has to deal with the given briefs and had to choose one of them before the teams first met at the camp. Hence there was a need of communication prior to the camp. A Virtual Learning Environment (VLE, Moodle) was used to facilitate communication between staff and students prior to arrival at the camp. The VLE was used to exchange documents, but it also encouraged communication between international participants and empowered the students not only to negotiate about the selection of the brief, but also to start to bond to each other. While the students accepted the 'monitored' communication within Moodle when being in touch with the teachers, we experienced that they avoided the VLE when informally communicating amongst each other or within their international student teams. For these purposes the students seem to prefer to use social media sites as a communication tool.

Since a brief has to be selected prior to the camp, the composition of the international student teams has to be concluded prior to this. All successful student applicants were formed into multi-national and cross discipline teams. These were posted on Moodle in order that the students could start to communicate with each other and discuss possible strategies in response to briefs set by external partner organisations. There were three different criteria used for these groupings. The most important was to ensure an as wide as possible mix of nationalities. Secondly, was the student's skills and their desire to have specific roles within their project teams. Regarding skills, all students sent in their CV to facilitate the grouping process. The third criterion was the communication profiles of the students. This criterion has, at its foundation, the concept that people prefer to interpret what is most beneficial for
them. Sometimes one can be absolutely sure that something is correct while another person can be equally sure that s/he is correct. Therefore, one needs to learn how to interpret and understand others better, to be more efficient and skillful at presenting oneself. According to Ohlsson (1996) this is known as adapting to ‘Communication Profiles’. From this perspective, student communication profiles were developed. An equitable mix and distribution of practice and communication skills, within the student cohort was therefore attempted.

3 External Collaborative Partnerships and Cross-Cultural Opportunities

The staff team in co-operation with national, regional and local partner organisations wrote project briefs. In Grebbestad, Sweden in 2011 the West Sweden Tourist Board, Grebbestad Tourist Office and the local (fishing) industry of Grebbestad were included. The following year in Kemmel, Belgium Steunpunt Natuur- en Milieueducatie, Regionaal Landschap West-Vlaamse Heuvels, Madoc, Steunpunt Cultuur Westhoek Provincie West-Vlaanderen, and the Tourism Westhoek and Folk Museum Dranouter were involved in the setting of the briefs. The topics of the project briefs were derived from the overall topic of the ICDC project ‘To see ourselves as others see us’ incorporating ecological issues and sustainable futures, national/regional identities, tourism and regional development and cultural expressions. These topics, which have remained unchanged over the three-year project period, had to be adapted to the specialities of the given local situation. In Grebbestad the students could choose from four different briefs:

- Cultural expressions, where students could work with the local Tourist Office
- Ecological issues, where students could work with the local (fishing) industry
- Regional identity and tourism, where students could work with the West Sweden Tourist Board.

In Kemmel, Belgium the number of briefs set up for the student groups was extended to eight. The groups could choose from:

- Marketing of tourism in the Westhoek for families with children younger than twelve
- World War I
- The border between France and the Westhoek
- Couleur Locale of the Westhoek
- Hiking network nodes in Kemmel (local level)
- Exposition De Bergen Underground
- Haute Cuisine
- Stimulating environmental awareness in the Heuvelland region

Background research into each of the topics of the briefs was encouraged and focus points were presented in the first week by members of staff and regional partners to give the students first insights into the topic of the briefs. In addition, study visits to appropriate partners, organisations, exhibitions, events and venues were organised during the first week of the camp and two study tours to Ghent and Nieuwpoort were organised for the interim weekend. These study visits allowed students the opportunity to gain valuable research opportunities to bring to their chosen projects.

4 Cross-Media Synergies and Pedagogical Partnerships

A variety of Learning and Teaching strategies were employed before and during the Camp: Lectures, seminars, workshops, practice based collaborative studio activities, study visits, research tours to exhibitions and events, formative and summative assessment and opportunities for feedback.

Students, in response to given briefs, repackaged the host nation using cross-media production technologies. They critically re-appraised, through a series of group and individual activities, pre-conceived images of the host nation using convergent-media production technologies.
Through the eyes of the host nation and the other nationalities involved in the Intensive Programme, students critically reflected upon current images and representations of the host nation and local regional environments. Notions of national, group and personal identity were explored in both individual and group activities. From these analyses, various opportunities in media production were explored and students worked together in International teams to develop and present alternative images of the host nations' national and regional identities. These reflected more accurately all forms of recent cultural and societal change. Product evidence in the form of group prototypes in response to given briefs were developed and shared ideas were produced. These were presented at the end of the IP to a collaborative forum of International staff teams and regional and national cultural partners for feedback.

Appropriate digital, (and analogue) media formats were used by participants. Innovative project development and new collaborative pedagogical practices were employed, allowing participants the opportunity for team working with differing media types and for the synthesis of these in the production of new and innovative media products. The varying skillsets of the students were encouraged and optimised within each group's activities.

The requirement to work with International staff and students, different levels of technical and creative expertise, differing expectations of working and developing projects, was one of the most important aspects of the collaboration.

4.1. Organisational and Pedagogical Approaches

All partners actively participated in the Intensive Programme. Linköping University (LiU) contributed as the lead partner with overall organizational and management responsibilities. Stuttgart Media University (HdM) was, in partnership with Artevelde University College Ghent (AHS), responsible for much of the pre-camp organisational aspects and also introductory role-play, ice-breaking/bonding, inter-cultural communication and teambuilding exercises. All partner institutions were involved in these activities on camp. Prior to the camp a Moodle site was designed by HdM to introduce participants and allow students to engage in pre-camp activities.

The University of the West of Scotland (UWS) provided teaching relating to the design process. UWS was also involved in matters of contextualization, graphic design & visual communication in relation to cultural and social identities. All other partners were also involved in the activities stated above, as well as in:

The selection and preparation of participating students from the own partner universities.
Planning the curriculum and structure of the IP.
Lectures, seminars and input to group projects, staff meetings during the IP, and mentoring and tutorial support.

The figures 1 and 2 show the academic, (and social) structure of the Belgian camp, 2012.
4.2 ASSESSMENT

The very nature of collaborative working in the Visual Arts and Design subject area creates challenges in the assessment of project work. This however is becoming an increasingly widespread working strategy within the Creative Industries. Projects are content-oriented and very often disseminated using a multi-platform approach. This can be even more challenging when working within an International dimension and could involve differing national and regional identities and communication strategies.

These were some of the challenges facing the staff team when designing a strategy for collaborative assessment while working in Visual Art & Design disciplines. This also became one of the major considerations surrounding the choice of topic for the camp, (Intercultural Identity). One of the major challenges faced by the staff team was creating opportunities for
the evidencing of individual input to project work, and also evidencing partnership and collaborative team working. Therefore a range of formative and summative assessment strategies were employed. Formative assessment took place at four key points during the working process of the camp. This strategy was shared with the students at the beginning of the camp.

Formative assessment in Belgium took the form of group presentations as follows:
Presentation 1: »Ideas« (Day 5)
Presentation 2: »Problem(s) and Possible Solutions« (Day 7)
Presentation 3: »Concept« (Day 11)
Presentation 4: »Final Presentation and Exhibition« (Day 14)

These group presentations were equivalent to 20% of the final mark.

The summative assessment took two forms:
The submission of an evaluation of individual and collaborative roles and responsibilities within the collaborative project. This could be in the form of a sketchbook, diary or blog. A template was provided outlining the possible structure and content for this report. (800 words for the collaborative evaluation and 400 words for individual reflection.)

An Exhibition and final presentation of group output. Each group had the opportunity of mounting and presenting a final exhibition of their process and final media prototypes.

The evaluation of individual and collaborative roles and responsibilities counted for 30% of the final mark, while the exhibition and final presentation accounted for 50% of the final mark. The combination of formative and summative assessments with personal and team performance facilitated an appropriate appraise of the students performance.

In order to ensure an assessment as objective as possible, each staff member used grade related criteria, and made evaluative comments during the presentations using a prepared evaluation form. A short debate took place at the end of each presentation where staff members discussed their evaluation. At the end of the camp, following the final presentations and exhibition, a grading conference took place, where the staff members decided upon the final marks based assessment made at the various presentations.

As the Intercultural Design Camp brings together students from various European nations, and each of the nations has a different grading system, the European ECTS grading system was used, described in the ECTS Users’ Guide (European Communities (2009)). Each student received an ECTS grade; A, B, C, D, E or F (ail) and each university provided tables to convert these ECTS grades into their national grading system. Altogether four ECTS points were awarded to successful participants certified by an ICDC certificate.

4.3 STRATEGIES FOR FEEDBACK

Feedback to the students was a very important aspect of the camp. This led the staff team to discuss and engage with a variety of feedback opportunities for students including:

- Preparation and pitching ideas to staff and external partners created opportunities for future work activities.
- Interaction with local and regional agencies in order to develop creative entrepreneurial skills.
- Create creative design solutions in response to professionally set briefs which further enhanced team working and spotlighted future career opportunities.

To engage with the design process involving negotiation and development of creative ideas to prototype stage, which created a valuable set of transferrable skills and experiences, leading to a marketable product, and future business developments.

The key role in the concept for providing on-going feedback to the individual student and to the project groups was the mentor. One staff member was responsible for mentoring a group of students for the duration of the camp, and one of the remits of this role was to formally feed back staff responses to the student teams. This was done with the aid of a feedback form, which was designed around the Learning Outcomes for each presentation. Each group received feedback to their presentations (Ideas / Problem(s) and Possible Solutions /
Concept / Final Presentation). Since the mentors were responsible to collect and condense the results of the staff debate at the end of each student presentation, the project groups received feedback to their project work not only from their mentor but also from all staff members. In addition to the allocation of a mentor to each group, each staff member filled in a CV describing his/her skills and expertise prior to the camp. These CVs were uploaded on the Moodle platform prior to the camp. At the beginning of the camp each staff member introduced him/herself to students. Every student was informed about the expertise of each staff member and had the chance to discuss his project work with an expert in the corresponding field. As a consequence the main aspect of the selection of the staff members for the Design Camp was to cover the wide variety of expertise needed for realizing a visual art and design project (cf. 1.2 Background). Due to the fact that most of the briefs were set in cooperation with local organizations or companies the students were able to contact the expert from these institutions in order to get background information for their projects or to discuss their concept. Most of the external partners were also present at the final presentation and exhibition and provide the students with additional feedback to the projects.

5. Products, Outputs and Dissemination

5.1 Products

Each collaborative team presented prototypes of their project at various stages of the camp to a mixed cohort of students, staff and external partners. This allowed for formative peer and mentor feedback throughout the project. A final, summative presentation was staged at the end of the camp and students also mounted an exhibition of their work. A wide range of innovative cross media products were developed including:

- Advertising and Marketing campaigns
- Graphic Design and Communication projects (print and web)
- Film-making and Photography products
- Art and concept led installation
- Environmental Web based media
- Print and virtual publications
- Tourist based web and mobile applications

![Fig. 3: Mobile app 'Cultuurkalender'](image1.png) ![Fig. 4: Marketing campaign 'Westhoek for Kids'](image2.png)
Further examples of the developed prototypes may be viewed on the ICDC website www.designcamp.eu.

5.2 Outputs

From the start of the IP, a review of the results of the Design Camp has been applied. The evaluation process employed has focussed on six different aspects: Purpose, location, engagement, and appropriateness of teacher/staff, structure and teamwork. At the end of the Camp the students complete an evaluation form, which consists of three questions for each of the above-mentioned categories. The results from all evaluation forms were reviewed to find possible improvements. In average on a measuring scale from 0 (negative) to 4 (positive) the students evaluated the Kemmel Camp with 2.98, which is a little bit below the score from the Grebbestad Camp, but still a remarkable result. Having a differentiated view on each individual question it has become obvious that the students assessed the Design Camp to be of a high value for their future studies and professional lives. Most of the students surveyed report that the Design Camp was ‘good for my future development’ and ‘developed me as a person through my participation in the Design Camp’. For example the students assessed the usefulness of the Design Camp for their future careers with 2.79.

Their participation within the project scored with 3.31. These figures prove that the IP has a particularly important influence on the academic development of the participating students and that the basic approach of the Intercultural Design Camp has been a success. (Westbomke et al (2011)). In addition to the internal project evaluation the students filled in the official EU student evaluation form. This review considers among other things questions concerning the location, motivation, and financial issues.

As intended, the Intercultural Design Camp supports student exchange by enabling increased mobility between students and teachers from a range of European Universities. While working on creative design projects the students develop their intercultural and interdisciplinary competencies and often, the Design Camp is the starting point for spending a semester abroad at one of the partner universities. The Intensive Programme has had a positive effect not only on the students but also on the staff. While preparing the IP the teachers gained a deeper insight into the structure and the working methodologies of each of the partner universities. This has lead to an enhanced exchange between teachers and support staff. For example, two teachers from Linköping University presented guest lectures at the Stuttgart Media University, one from UWS will spend a week at Linköping University, (2013/14), and a teacher from Stuttgart Media University will be on Erasmus exchange at Artevelde University College Ghent.

The IP has not only impact on the participating students and staff; it has also influenced the teaching at the different partner universities, especially the conception of new modules and the deployment of new methodologies in learning and teaching. For example, at UWS there has been a level 9 module created entitled ‘International Project’. Students can carry over ECTS points achieved through the ICDC and complete the module with additional work in
the UK or a partner nation. In the academic year 2012/13, HdM has expanded the academic courses offered in English to facilitate incoming students from non-German speaking countries. And it introduced a module called 'International Studies' which allowed HdM students spending a semester abroad and to get credits for the courses taken at the foreign university. At Masters level in UWS, pedagogical methodologies learned at the ICDC, have been introduced to the module, Collaborative Project.

5.3 Dissemination

The results of the Intercultural Design Camp will be disseminated in different ways. First of all there is the website www.designcamp.eu. The website gives an insight to the concept of the Design Camp and its development since its first cycle in Muensingen 2009 (Nyström et al (2010)). Since the Design Camp 2011 the presentations of the results of the project work have become an integral part of the project dissemination and the results of all project groups will be published on the website. That gives a broad public the opportunity to access the outcomes of the Design Camp. In addition during the Kemmel Camp the IP got some coverage in the local press. ‘Het laatste Nieuws’ and ‘De Krant van West-Vlaanderen’ published articles about the Design Camp and the work the students had performed there. This raises the attention of local authorities and also of the local population of the region. The links with external partners like the local tourist office and local creative industries not only played an important part in the progress of the Design Camp itself but also helped to provide a wider profile for the IP.

Since the inception of the project there is a consensus between all partners to continue the partnership. The IP has been a useful focus for the development of international strategy at each partner institution. Therefore there are on-going consultations about collaboration beyond the IP. First meetings have taken place how the network could continue after the camp 2013 in Germany. A Scottish-led, (UWS) application on behalf of the partnership has now been submitted to the EU Erasmus Programme for funding to continue this project to the next stage; entitled 'Future Legacies and Opportunity Workshops', (FLOW 2014) This is based on cultural legacy opportunities following a large-scale global cultural event in Glasgow; The Commonwealth Games, 2014.

6 Future Staff and Student Exchange Opportunities

Benefits to the student cohort include:
Student collaboration and future networking opportunities have been obvious benefits of the camps.
Increased staff knowledge exchange, research and mobility opportunities.
International collaborations have been formed and future group and Social Media networks, (Facebook, Twitter, Flickr), have been set up in order to progress future collaborative working. There are also opportunities for some of the groups to progress their prototype ideas to finished products in collaboration with local partner institutions such as the Swedish national and Heuvelland Tourist Boards.
Curriculum Development:
The camp also provided a model of good practice in collaborative working and future Curriculum development of modules in Collaborative and International practice are planned in each institution.
Staff are also discussing the possibility of an International Exchange Masters in the area of Creative Industries Practice.

7 CONCLUSION
Reviewing the last four Intercultural Design Camps the project has developed tremendously. Starting with a low-budget one-week camp accommodated in former military barracks, the Intensive Programme has now reached a higher standard, organizationally and pedagogically, prior to its inception in 2009. One of the reasons for this development, beside
the high personal dedication of the members of the ICDC consortium, is that there is a commitment to evaluate the strengths and weaknesses of every Design Camp and constantly develop the concept to improve for the next project. The conceptual focus for the Design Camp 2012 in Kemmel, Belgium was to develop and apply methods for assessing students' collaborative digital media project work and even more importantly to provide on-going feedback to the students about the project work itself and about their personal participation. From the evaluation and from student feedback it is evident that improvements have been made, but there are still some problems to resolve, some of which include pre- and on-camp discussion surrounding collaborative mentoring, student self evaluation, (collaborative roles and responsibilities). Since there are on-going discussions between partner universities in preparation for the next delivery of the Intercultural Design Camp in Pforzheim, Germany 2013, (already in preparation), it is anticipated that solutions to problems will be found. It is hoped that future participants of the Intercultural Design Camp will gain the full benefit from the enhancement opportunities created by the research gathered from previous year's projects.

References


Ohlsson, M (1996) Relationsanpassad kommunikation

Website Intercultural Design Camp (2013), available at: www.designcamp.eu

Vertically Integrated Projects (VIP) @ the University of Strathclyde: How to enhance the student and staff learning experience through VIP

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ABSTRACT: The purpose of this paper is to outline and share with the wider academic community the experience of developing and implementing Vertically Integrated Projects at the University of Strathclyde during their pilot phase. In turn we consider the results of a preliminary evaluation, paying particular attention to the effects on the student learning experience, (and to a lesser extent the academic staff), and illustrate how those results and our own observations have been used to identify constraints in VIP development and expansion, in addition to those critical factors which have contributed to their success. We conclude with a reflective statement on `moving forward`, in the hope that others will be inspired to follow suit.

1 Introduction

Universities exist in a world of `supercomplexity`, (Barnett, 2000), challenged by increasingly demanding government imperatives, more international competition, rapid advances in technology and the growing importance of the knowledge economy. This in turn impacts on the traditional role of universities as providers of knowledge, and on students as the passive recipients of specialist knowledge, requiring new pedagogical approaches and educational practices (Tynjala, et al 2003).

The paper will present a model of curriculum innovation which seeks to foster inquiry-related skills for students through collaborating on shared research topics with staff in interdisciplinary groups. It offers reflections on the pilot phase of development from 2011-13 and presentation and discussion of emerging issues from preliminary evaluation and a discussion of the next steps in light of lessons learned from the pilot phase.

The discussion is primarily aimed to illustrate to readers how such a development might translate into their own contexts and to flag key issues that might warrant attention should others wish to adopt or adapt this model of delivery. Aspects of educational theory are drawn upon throughout to demonstrate the pedagogical underpinnings of Vertically Integrated Projects (VIPs).

1.1 Institutional Context

The University of Strathclyde, as part of its Strategic Plan and Education Strategy to `develop a distinctive Strathclyde curriculum` and to `ensure a high-quality distinctive Student Experience` has gone some way in acknowledging the requirement for `new pedagogical approaches and educational practices` by embarking on an ambitious programme of innovations which include, the introduction and development of Vertically Integrated Projects (VIPs). These are new credit bearing interdisciplinary projects which enable undergraduates to engage in inquiry based learning alongside students of other disciplines and years, in addition to postgraduate researchers and academic staff, to generate new knowledge. These draw on international best practice, particularly from the Georgia Institute of Technology (GIT).

1.2 Concept

These projects give students from first year through to postgraduate level the opportunity to...
work with staff in inter-disciplinary teams on cutting-edge research and development projects. The projects aim to give the students the opportunity:

To learn and practice many different professional skills.

Make substantial technical contributions to a project.

Experience many different roles on a large design team.

Interact and receive support from more senior students and, in some instances, receive mentoring from PhD students involved in the project.

Contribute to the completion of large-scale design projects that are of significant benefit to the research programmes of staff member.

2 VIP Development 2011-2013

2.1 Context

The first phase of development began in the AY 2011/2012, as a strategic initiative promoted by a senior academic, the Associate Deputy Principal (ADP) Education, enabled by funding from the Education Excellence Fund and led by a VIP Academic Champion.

Further support and guidance was given by Professor Ed Coyle from Georgia Tech, with four pilot projects covering a wide range of academic disciplines, academic staff and students from those different disciplines at different levels of study. These are highlighted in Table 1 below.

Table 1: VIP Titles, Start Dates and Description

<table>
<thead>
<tr>
<th>VIP Team (date established)</th>
<th>Research Topic</th>
<th>Contributing Disciplines</th>
<th>VIP Team (date established)</th>
<th>Research Topic</th>
<th>Contributing Disciplines</th>
</tr>
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Defining our terms

Acknowledging there are competing definitions of what interdisciplinarity (as opposed to cross- or multi- disciplinarity) means, and little consistency in how it is applied in the literature, it useful to outline the definitions applied by the authors in this paper. Davies et al (2010) note that the key features of inter-disciplinary activity is the extent to which disciplines integrate to produce something novel. They describe five sub categories of interdisciplinarity-relational, exchange, pluridisciplinarity, modification and transdisciplinarity. Using this continuum, VIPs are mostly examples of pluridisciplinary collaboration; “[requiring] two or more disciplines to combine their expertise to jointly address an area of common concern. It often occurs when the problem is too complex to be addressed by a single discipline. It requires integration and an explicit degree of exchange/learning from other disciplines. There is often a transfer of techniques and methodologies between disciplines. Research remains discipline-focussed though.”

However, for ease of reference throughout the paper, VIPs are described as interdisciplinary for consistency.

2.2 Development Domains

The Education Excellence Fund is a means by which staff can be supported in exploring innovations in learning and teaching aimed at undergraduates and/or taught postgraduates.

Design, Manufacture and Engineering Management

500
There have been four main dimensions to development of VIP teams in the pilot phase. These can be summarised as: teaching, learning and assessment; facilitating communication; establishing appropriate business processes and quality assurance and regulation. These are addressed in detail below.

2.2.1 Teaching, Learning and Assessment

A key feature of the VIP approach is to provide a context where undergraduate students work in an interdisciplinary group where they can undertake the four practices described by Huber and Hutchings (2005: 20) of “framing questions, gathering and exploring evidence, trying out and refining new insights in the classroom [or laboratory] and going public on what is learned”. Unlike many other approaches to inquiry-based learning classes, VIPs are long-term, rolling forward each year and have an explicit goal to contribute to staff research and/or knowledge exchange activity. This means not just constructing meaning and understanding of existing knowledge but also working with staff on joint discovery of new knowledge and its practical application.

The design and intended approach of VIPs position students in numerous roles throughout their involvement, spanning what Healey (2009) describes in his model as “students as “audience” and students as “participants”. Engaging with research content and research processes and problems as the projects progress, knowledge requirements are identified and new knowledge is generated as a result of the research output. It has been the intention to design the VIP teams to operate as interdisciplinary learning communities, operating in inquiry-mode.

Learning Outcomes, Assessment and Pedagogies

Prior to the establishment of the VIP teams in 2011, generic module descriptors were developed to capture Learning Outcomes (LOs) which were expected to be common for all VIPs. These learning outcomes were written to give flexibility and scope to enable co-creation of the learning in each team. Team-specific tasks are articulated at local level. The generic LOs include:

- Complete a series of tasks which interface into a larger project.
- Plan workload in order to deliver tasks on time and within budget.
- Interact with the other members of the group to understand their requirements.
- Complete other tasks specific to their discipline consistent with level.

Students are assessed in a variety of ways. These include reports, presentations; formative quizzes; production of posters (or other relevant media such as blogs & wikis) e.g. textlab2013.wordpress.com and logbooks. All VIP teams are encouraged (but not required) to include reflective statements to capture students’ development as a result of participating in the VIP team. Other presentation of students work can be found at www.strath.ac.uk/viprojects

"In the drive to help students develop integrative habits of mind, it is important to remember that the effectiveness of curricular innovations depends on the pedagogies that support them”, (Huber, et al 2007).

In typical approaches to project-based learning the teacher plays the role of `expert` instructor, providing guidance and suggestions on achieving the desired outcome and is usually in response to “learner need and within the context of the project” (Savery, 2006). Therefore if the outcome is already defined, there is less or little need for the learner to do that.

In inquiry-based learning (or constructivism) the learner as cited previously is not a `blank slate`, but brings past experiences and cultural factors to a new situation. The student is at the centre of actively engaging in their own learning. The tutor’s role in inquiry-based learning is both of a facilitator of learning and a provider of information. Whereas, in problem-based learning the tutor does not typically provide information, but supports the `process` of learning and `expects the learner to make their thinking clear`, (Savery, 2006).

One might argue that in developing VIPs and observing the variations in teaching approaches amongst them that new pluralistic pedagogies are emerging; ones which draw on the most effective features of the above but are dependent on the project and are co-
constructed by the participants. Each individual can play a different role at different times, both as a producer of knowledge and as a consumer of it. This is in part due to the nature of the research problem and the diversity of the disciplines involved in individual projects. This is very much an embryonic observation at the moment, but one which we believe is worthy of further consideration and evaluation as we move forward to roll out of VIPs at Strathclyde in AY 2013/14.

2.2.2 Communications
Initial communications in VIP centred on promoting the VIP in order to recruit students and for staff to become involved. This took the form of cross campus posters, events, lecture presentations and engagement with key university committees. Professor Ed Coyle visited in phase 1 to formally launch VIP at Strathclyde and to showcase VIP experiences from the GIT.

In the first year of the pilot there was little use of the institution’s VLE (Virtual Learning Environment) Myplace, to promote the VIP or connect the projects together. Interestingly, many projects (organised and instigated by the students) had setup their own social networking sites and websites using a variety of social media tools, such as Twitter and Facebook, to communicate within their teams and manage their information and knowledge exchange.

2.2.3 Establishing Appropriate Business Processes

Due to the nature of the VIP initiative, many of the standard, Faculty-facing business processes have been insufficient. They do not lend themselves easily to interdisciplinary activities which transverse Faculty structures.

The pilot projects, have been supported since their inception by members of the university’s Education Enhancement Team, mainly in VIP administration, evaluation and promotion. Similarly the lead academic champion has been involved in every stage of development from concept to implementation to review. This group of individuals have been central to identifying relevant solutions to business processes, such as selection, recruitment and management of student information in terms of class registration.

2.2.4 Quality Assurance and Regulation

Related to the aforementioned discussion about business processes, perhaps the biggest challenge of the pilot phase has been ‘finding a way through the curriculum’ to offer such opportunities to students. The main challenge here has been to find ‘space’ in the regulatory framework to run VIPs and to find agile ways of ratifying the creation of new VIP teams whilst assuring confidence in quality assurance across Faculty boundaries, systems and processes. Given the focus on developing and running the pilot “in-year” three, options of how students could gain credit for participation were agreed and are currently under review. Any student participating in VIP should earn credits. Methods of participating at present include students participating as an elective; participating as part of an existing class (usually where there is scope to self-define a project) or as a class which is in addition to the 120 credit requirement for the academic year.

3. Pilot Evaluation

3.1 Methodology

We are very much at the start of an on-going evaluation process in that the VIP Pilots started in the AY 2011/2012. Therefore, these should be viewed as emergent findings, which mainly focus on, but are not wholly restricted to, the student experience. Our observations are informed from a range of sources:

Student surveys (2) - (completed end of the AYs 2011/12 and 2012/13)
Informal student focus groups
Staff workshops/meetings
Additional `lines of evidence` come from our observations and experiences of developing and implementing the VIP across the university.

### 3.2 VIP Student Experience Survey Results

An interim evaluation of the VIP Pilot took place at the end of the AY 2011/12 with the 61 students, who took part in one of the four pilots VIP across the university. This was conducted through a small scale survey and informal focus groups. This comprised of a questionnaire, with a mix of closed, open and scaled questions, which aimed to capture their experience of participating in the projects. This was run again in the following AY 2012/2013 to capture the experiences of the additional 60 students participating in the four new VIP Pilots.

**Table 2: VIP Evaluation Response Rates**

<table>
<thead>
<tr>
<th>Academic Year</th>
<th>Number of Students</th>
<th>Number/% of Student Responses</th>
<th>Total/%</th>
<th>% Year Group Responses*</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1st 2nd 3rd 4th 5th/PG</td>
</tr>
<tr>
<td>2011/2012</td>
<td>61</td>
<td>40/66</td>
<td>73/61</td>
<td>6 39 27 3 24</td>
</tr>
<tr>
<td>2012/2013</td>
<td>60</td>
<td>33/55</td>
<td></td>
<td>0 45 39 6 9 n=73</td>
</tr>
</tbody>
</table>

*Percentages may not sum due to rounding.

Much of the evaluation was framed around the `learning`/increased knowledge` of `own` discipline and `other` disciplines. Other questions related to attribute and skills acquisition. Final questions focused on levels of support from both staff and students.

A summary of (merged) responses indicated that:

The vast majority of students found participating in a VIP to be rewarding in increasing knowledge of their own subject and that they found their participation to be an enjoyable experience.

A significant majority also reported that they had increased their knowledge of a subject other than their own.

Students reported an increase in personal competences in the areas of confidence, understanding of real world research projects, collaborative working, leadership skills, team building skills and communication skills following their participation in the VIP as compared to their levels prior to participation. A section of indicative responses (merged data from both years) are highlighted in Graphs 1.1-4.

Students also reported an increase in other skills, e.g. in project management, networking and presentation skills. Some highlighted the positive effects of “working and helping students with less experience”.

Interestingly, when asked “Please rate the extent to which you felt supported and encouraged by fellow students and staff while participating in the VIP”, the results from both surveys are almost identical in relation to the support received from VIP staff, and students from the same subject, as the vast majority rated it `very good` or `good`. Very positive results were also recorded for `support` from students in a higher year of study and whilst not as high, support from students studying a different subject, still rated very positively.

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37 A `Showcase` event was held in March 2103, to showcase the student outputs, to foster further communication/collaboration with the GIT (through a live link-up) and to give non-VIP participants an opportunity to discuss the benefits and constraints of being involved in a VIP, with VIP teams.
3.2.1 Benefits of VIP Participation

Students were asked, as part of a free text response, to state what they felt were the three most positive aspects of participating in a VIP. The three aspects which were cited most frequently and strongly were:

The nature of team working, interaction and collaboration between students from different years and different departments.

The fact that they were working on `real world` research/problems.

The interdisciplinary nature of the collaboration and research.

Other positive responses related to its (VIP) potential as a teaching method, improving ones CV and the impact on knowledge and understanding of ones (the student’s) own discipline. The only observable `difference` between the year one and two survey results is that there was more of an emphasis, in the free text responses to `self-awareness, self-management and time management` in the latter survey.

There is significant emphasis in the results on the perceived benefits from team working, collaboration and interaction between students (and staff). This is important as collaborative (group) learning can also improve students’ self-efficacy and metacognition by virtue of weighing up other peoples’ views, and arriving at and communicating their own position based on the interaction with group members. Additionally, more co-operative learning environments have added benefits in facilitating ‘living knowledge’, relationships and trust and generating social capital.

The outcome of the evaluations and from informal discussion with staff and students is overwhelmingly positive. Some administrative and infrastructure issues were identified, e.g. in relation to timetabling and physical spaces to meet. These are addressed in 3.2.2.

3.2.2 Scope for Improvement

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38 Team working and communication skills have been highlighted as the most sought after graduate skills in a study of employers’ needs by the Council for Industry and Higher Education (Archer & Davison 2008).
There were no issues identified through the open/closed, scaled questions in the survey. However, students were asked to identify, in a free text response, any areas that could have been improved. The main ones cited were:

**Timetabling** – this had a dual aspect, namely some course timetables/structures could not accommodate the VIP and students therefore had to do them as additional credits. Secondly, since students came from different departments/faculties it was difficult for some to get a time when they were all free to meet; in addition some VIP teams had difficulty in finding a place to meet.

More advertising and promotion to increase awareness of the VIP and providing more opportunities to bring the VIP teams together.

The main potential improvements mentioned in the second survey related to organisation, communication and start dates; some students felt that better planning and more structure around the projects would have been beneficial, communications to the teams and between the teams could have been improved and that start dates could be brought forward to earlier in the semester as it took a while to `get settled into the project`. Some also mentioned that recruiting from a wider pool of students `is key to ensure a skill match`.

**Student/Staff Workshop Feedback**

The main aim of the `workshop` element of the Showcase event was to encourage staff and students involved in VIP to share their experiences and in addition provide an opportunity for those not involved in one to ask questions/raise issues about starting a VIP.

There were 65 attendees at the event comprising a mix of undergraduate, postgraduate researchers and academic staff. The feedback received from the seven discussion groups are as indicated below.

**Table 3: VIP Development `Variables`**

<table>
<thead>
<tr>
<th>Areas for Discussion</th>
<th>VIP Teams - Academic Staff and Students</th>
<th>Non-VIP Participants – Academic Staff and Students</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Motivational Factors</strong></td>
<td>To engage in <code>real world</code> activity, which reflected research motivations. To be involved in an interdisciplinary project, motivated by an interesting topic, <code>outside of discipline-led</code> research. To <code>do something different</code>, and gave an <code>opportunity to meet new people in other years</code>.</td>
<td>Multi-disciplinary work, Projects were <code>new and exciting</code> and added <code>a different dimension to learning</code> Opportunity to develop an actual project while learning. A particular motivation for staff was <code>getting involved with enthusiastic students to encourage them</code>.</td>
</tr>
<tr>
<td><strong>Benefits/ Facilitating Factors</strong></td>
<td>Learning in a different way, which <code>increased understanding of how things work</code>, particularly an <code>interdisciplinary appreciation</code>. Learning about self- <code>self-awareness</code> and <code>learn what makes a difference</code>. Learning about and from others - <code>getting to know staff – building up relationships</code> and <code>gaining knowledge from other departments</code>.</td>
<td>To gain more knowledge about the existing VIP and some <code>start-up</code> guidance. To <code>help people</code>, this seemed to be two-fold in that it related to a sense of <code>social awareness</code>, and also to students’ own development. Recognition for effort and clarification of student credits.</td>
</tr>
<tr>
<td><strong>Constraints</strong></td>
<td>Timetabling came across as the main constraint. Time to meet, in particular was a problem, especially with a large group of people. Project management time, (less frequently cited).</td>
<td>The main barriers or constraints upon starting or getting involved in a VIP were: Time. Lack of faculty awareness,(for the staff), Lack of research background and <code>outreach</code>.</td>
</tr>
</tbody>
</table>

This is simply the start of a data collection process, which will be continued with a more comprehensive evaluation in AY 2013/2014. Furthermore this will be complemented by evaluation undertaken by our VIP international partner GIT, which will focus on social network analysis. However, even at this early stage, we are encouraged by the results and feel confident that the direction of travel is appropriate and believe that we can provide a useful foundation for others who are interested in pursuing similar initiatives.

4 Addressing the Challenges
**in Curriculum Design**

The timetabling issue remains difficult to resolve in that the nature of the innovation itself is the issue in the sense that including many different disciplines, inevitably results in `timetable clashes`. Similarly, some point to professional bodies and resulting requirements as a constraint on curriculum flexibility. We would hope to `mine` this more thoroughly in the following AY. The `meeting place` or lack of, has been marginally easier to resolve, with the help of the ADP, in securing dedicated space for the VIP teams to meet and work. The VIP teams now have such learning spaces ring-fenced and block booked on the central timetable for 12 hours each week day.

The `credit` issue has been somewhat ameliorated by the introduction of generic class codes, which confers 10 credits to any student registering for a VIP, regardless of discipline or department. (Students also receive a certificate which shows which VIP they have participated in). However, this has not been without its problems, in that the current student records system has a number of constraints. Therefore, a separate database of student details has been set-up and we are exploring a process that will be more sustainable in the longer term. There still remains an issue of whether students take part as an elective or for extra credits above their core credits for the year.

**in Communications – to and between…**

Myplace provides a centralised VIP resource and communication hub to connect all the VIP projects together to foster an online community where participants could find out more information about other VIP projects, communicate both within and outwith their own VIP project and post any project problems in discussion forums. The online community area is also an ideal place for both VIP administrators and VIP project leads to gain a helicopter view of the different VIP projects on offer and additionally allow them to gain an insight into the nature of the discussions of their own VIP Team and enable `intervention` if problems were identified. Learning from student practice in phase 1 it seemed logical to introduce a centralised VIP resource hub to allow document exchange, online discussion and collaboration across the VIP projects. Online collaboration tools include document storage, discussion forums, email distribution lists, video and audio streaming and dedicated online room booking tools. The online community area also allows for the integration of social media tools that were popular and well utilised from observation of practice in the first year of VIP.

Participants were given full control of the VIP community to foster a sense of ownership for their respective project areas and are actively encouraged to participate in the discussion forums for other VIP projects.

**in Enabling Learning Communities**

Learning tools/resources – a series of VIP seminars were planned and implemented throughout AY 2012/2013, which focussed on engaging external speakers to lead on: Entrepreneurship, Project Management and Leadership. Those involved in setting up the support infrastructure in VIP have invested time in facilitating workshops which bring all VIP staff together. These have been important fora to air successes, challenges and ideas for future improvement. This format of facilitated support is becoming more of a challenge as the initiative grows.

**in Process and Procedures**

A VIP Board has been established to have academic oversight of existing VIP and to implement an approval process for new ones. This should go some way towards ensuring that university quality assurance procedures are being adhered to, in addition to streamlining business processes. The Board will also have access to seed-funding to `kick-start` a VIP.
5 Conclusions

Lessons Learned
In summary, this paper has presented an example of curriculum innovation which delivers interdisciplinary research and enquiry opportunities for multi-level groups of students. The VIPs have doubled in number in the pilot phases and involvement in a Vertically Integrated Project has undoubtedly brought benefits to those respective students and has enhanced their overall learning experience. There are also initial signs that there are advantages to the staff of either being part of, or leading a VIP, no least of which is through a variety of `research benefits`, in addition to having more motivated and enthusiastic students. Whilst we recognise that we are in the preliminary stages of triangulating evaluation data to better understand the experiences of, and effects upon, a range of stakeholders we feel confident that we are in a position to suggest a number of critical factors that have contributed to the success of the VIP initiative:

Senior Executive support – the VIPs are a key strategic initiative for the university and are therefore `championed` at Executive level
Commitment and time invested by both academic staff and students – both VIP staff and students have given a considerable amount of their own time to the projects.
Centralised support for business processes and educational development - the VIPs have been resource intensive in the pilot stage, with dedicated professional services staff responsible for development and implementation, which serves to demonstrate the university’s commitment to the initiative.
Collaboration with, and support from, the GIT partnership.

Moving Forward
The VIP have doubled in number in this initial pilot phase and there are many indications that there are a number about to come `on stream` given the interest and enthusiasm shown in them across the university. It is also likely that Strathclyde`s new Technology and Innovation Centre (TIC) will provide a vehicle for expansion of the VIP Programme once in operation.
This interest is not confined to the institution as other universities have expressed a desire to find out more about them with a view to `rolling-out` within their institutions. In addition, many employers and other external bodies have been impressed by both the initiative and the VIP students themselves e.g. representatives from the Times Higher Education periodical met with some of the VIP students on a recent visit and suggested they were to be `commended` on their achievements. Similarly the media has also recognised the Construction and Therapy VIP by doing a feature on it. [http://bit.ly/YBnE1k](http://bit.ly/YBnE1k)

A Strategic Review of the VIP is planned and this will focus on questions of institutional capacity and resource implications about staff development in relation to academic practice and support requirements. The main one however, will be the issue of scalability, whilst acknowledging the `success` of the VIP, one does recognise that at the moment they are open to a relatively small number of students and in order to expand significantly, changes to academic design, curriculum alignment and institutional processes and procedures would have to take place.

References
Collaborative curriculum reform - Scotland & Nigeria

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Abstract
This paper describes the interdisciplinary and international collaborative curriculum reform process followed to develop a competency-based Masters in Public Health (MPH) programme for Ahmadu Bello University (ABU) in Nigeria with the support of the University of Aberdeen, Scotland. The process involved a Departmental retreat, two workshops held in Nigeria, an independent review process as well as capacity-building visits to enable sharing of best practice. The outcomes thus far are a final draft of the competencies required from an ABU MPH graduate with initial mapping of learning outcomes and teaching and assessment methods. The process has been advantageous, but slow and challenging at the same time. Challenges include openness to change, bureaucracy and internal politics, infrastructure availability and staff changes. Positive aspects include the improvement in the quality of teaching and research within the MPH programme, team-building within the Department of Community Medicine, research collaboration opportunities and globalisation of the curriculum.

INTRODUCTION
This paper will describe the interdisciplinary and international collaborative curriculum reform process which underlies the overarching project of Establishing a Centre of Excellence in Maternal, Newborn and Child Health (MNCH) in Ahmadu Bello University.

Rationale for curriculum reform
In November 2007, the first Northern Nigerian Governors' Health Summit was held, with the Theme 'Alarming Death Among Mothers and Children: The Time to Act is Now.' (UNICEF, 2007). Stakeholders, including academics, from Northern Nigeria met to discuss why the North-West zone of Nigeria, where Ahmadu Bello University (ABU) is situated, and the North-East zone have the worst health and social indices in the country. They are the zones where poverty levels are highest, social development indicators are the worst, the status of women is lowest, health services are the least developed, the human resources for health crisis is the worst and where maternal and child mortality figures are disproportionately poor, distorting national aggregates. Human resource gaps in terms of quantity, quality, mix and distribution for both policy-making and service provision were identified as a major issue as was the lack of health leadership at both local government area (LGA) and state levels. One of the resolutions from the Summit was a call for the northern states to develop a plan for meeting this human resource challenge. The Association of Public Health Physicians of Nigeria advocates that health departments of each LGA in the country should have a Medical Officer of Health, who should be a public health physician with at least a Master of Public Health (MPH) to provide public health leadership. Although, eight universities offer MPH programmes in Nigeria (three in the northern zones, where more than half of Nigeria's population reside), it is clear that the number of MPH graduates currently being trained, nationally, but especially in the north is inadequate to meet needs. Except for six area councils in the Federal Capital Territory, none of the 419 LGAs in the northern zones have a Medical Officer of Health. Additionally, less than 30% of the needs for MPH graduates in the northern zones of the country are met.

The Department of Community Medicine at ABU in Zaria developed a MPH programme in 1999. It was developed to accelerate the response to the national human resource challenges in public health leadership, service provision, training and research at all levels of
the health care delivery system, and to evolve a programme seen to respond to the health needs of the country. It is a one-year (full time) or two-year (part-time) postgraduate programme, which trains middle level public health practitioners and is considered to be a minimum postgraduate public health qualification in the country. MPH graduates are required to provide leadership in public health departments and programmes at local, state and federal level. The emphasis of the current curriculum though is on instructional processes and knowledge acquisition, rather than abilities needed to respond to the needs of those to be served by the graduates.

The past decade has seen reform in education, training and professional development of the health professions in relation to curricula content, outcomes and processes to ensure that curricula are tied to the needs of those to be served and graduates are prepared to practice (Calhoun (a) et al, 2008). This has led to a renewed approach that focuses on accountability and curricular outcomes organised around competencies (Calhoun et al, 2002). Competency, in this context, can be defined as the blend of skills, abilities and knowledge needed to perform specific tasks in order to solve identified problems or perform a role in an organisation (Albanse et al, 2008). Consequently, in competency-based training, competencies are used as the basis of training by converting them to learning objectives (ASPHER, 2007). Outcomes or competency-based education has a number of advantages, including provision of greater specification regarding expected standards of the profession, fostering accountability, enhancing quality of educational programs, and ultimately, better preparation of the graduates for their roles upon graduation (Calhoun et al, 2002). Those in favour of competency-based education argue that in an era of greater accountability, curricula must not only define outcomes and abilities needed by graduates to practice, but also how they are to be taught and assessed (Frank et al, 2010). Also, competency-based training improves the performance of the students as it helps them acquire skills relevant for successful practice (Clark and Weist, 2000). The development of a competency-based curriculum is described as a systematic process, informed by available evidence from literature and stakeholders with a wide experience base who anchor the development of the curriculum on national/local realities (ASPHER, 2007). Several initiatives, especially in Europe and America have been launched to specify competencies for graduates of educational programs in the health professions. Competencies have also begun to redefine accreditation and certification activities (Calhoun (b) et al., 2008). In the area of Public Health, the Association of Schools of Public Health (ASPH), made up of 40 Schools of Public Health in North America initiated a core competency project for MPH programmes in 2004. This led to the definition of core MPH competencies and sub-competencies (ASPH, 2006). A similar effort was undertaken by the Association of Schools of Public Health in the European Region (ASPHER) resulting in the publication of their draft MPH competencies in 2006 (ASPHER, 2007). Together, these competencies provide guidance for the development of curricula of different schools of public health.

It was therefore felt that revision of the MPH curriculum at ABU, to a competency-based programme, would align with this global best practice and contribute to the national public health infrastructural development. Although American and European institutions and associations have developed core competencies for MPH programmes, these cannot merely be duplicated for use at ABU. MPH competencies should of necessity reflect the realities of population health and health systems serving the population needs and also, the philosophy of the academia and stakeholders (ASPHER, 2007).

It was recognised that for the ABU MPH programme to be able to make the needed contributions to health development in the country, the training and research must be seen to be responsive to changing societal needs and developmental goals. It must translate to graduating public health leaders who have acquired the necessary competencies required to develop strong responsive public health systems that address public health needs. While ABU policy stipulates curricular review every five years, no mechanisms are in place to
operationalise the review process. The curriculum has therefore not undergone any major reviews since its development, although there have been incremental reviews by individual lecturers for courses. Consequently, there are gaps in the MPH training, which over time has compromised the adequacy of the graduates for practice.

A further challenge to curricular reform is that ABU has become insular, looking inwards, instead of outwards for new ideas. This has tended to worsen over time as opportunities for overseas training, collaboration and staff exchanges etc. declined, resulting in diminished quality of training and research. An interdisciplinary and cross-institutional approach was believed to be critical to cross-fertilize ideas, leverage resources, arrest decline and improve on capacities for teaching, service and research. There is an increasing paradigm shift recognizing that the current approach of provision of sponsorships for academics from developing countries to go to institutions in developed countries for post-graduate training is unlikely to have the desired impact because of the high cost and the limited number of persons that can benefit from such training. Development partners are increasingly forging collaborations and partnerships and support that offer local opportunities for professional training and institutional capacity-building to strengthen local post-graduate programmes. In response to this paradigm shift, ABU identified the University of Aberdeen (UoA) in Scotland as a collaborative partner in the development of a grant application to fund the project. The UoA was selected as it has a reputation as a premier global research and training centre, which has provided leadership and technical support in multi-country studies. It also conducts international training courses in association with other universities in Africa and Asia. The Division of Applied Health Sciences has expertise in public health and in the areas of curriculum development and e-learning.

There is general consensus that competency-based education enhances communication and coordination across courses and programmes and provides an impetus for faculty development, curricular reform and leadership in educational innovation (Davis and Harden, 2003). The overall project thus aimed to strengthen the institutional capacity of the Department of Community Medicine, ABU to transform its MPH curriculum to a competency-based curriculum; to develop a centre of excellence for the conduct of collaborative multidisciplinary and trans-institutional MNCH research that will inform teaching, service and policy articulation, implementation and evaluation at all levels of the health care system; and to adopt policies and practices to promote and sustain female participation in the post-graduate programmes. The process for achieving the first objective only will be discussed in further detail in this paper.

METHODOLOGY
The first step in this process was a collaborative workshop held at ABU in Zaria, Nigeria in December 2011. The aim of this workshop was to initiate the collaboration between academics from the two Universities and to develop the MacArthur Foundation - Higher Education in Africa proposal. A preliminary list of proposed competencies for an ABU MPH graduate was drafted at this workshop. The application was successful and the project was initiated with a 2-day Departmental retreat mid 2012. This was followed by a one-week Teaching and Learning workshop facilitated by the UoA in Zaria in December 2012. This workshop aimed to provide training in innovative teaching and assessment methods; draft a revised curriculum and assess the learning environment at ABU. Capacity-building visits of five senior academics from ABU to UoA followed in March 2013.

Drafting competencies and introduction of competency-based curricula
During the initial workshop, UoA academics (3) presented aspects of what a competency-based curriculum involves and identified common public health competencies developed in Europe (ASPHER) and North America (ASPH). The identified domains of the ABU curriculum included Environmental Health; Biostatistics; Epidemiology; Behavioural science; Health policy and Management with cross-cutting competency domains of Communication
and informatics; Leadership; Diversity and culture; Programme planning; Public health biology and Systems thinking. A decision was made to use an adaptation of the steps proposed by Frank et al (2010) for the curriculum review process (Table 1). ABU academics provided background information on the current MPH programme.

<table>
<thead>
<tr>
<th>Table 1: Steps to a competency-based curriculum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1 Identify abilities and skill needs of MPH graduates</td>
</tr>
<tr>
<td>Step 2 Define the required competencies and their components</td>
</tr>
<tr>
<td>Step 3 Develop objectives for each sub-competency</td>
</tr>
<tr>
<td>Step 4 Define milestones of competency development path</td>
</tr>
<tr>
<td>Step 5 Select activities and instructional methods for all learning objectives</td>
</tr>
<tr>
<td>Step 6 Select assessment techniques to measure progress being made</td>
</tr>
<tr>
<td>Step 7 Design an outcome evaluation for the program</td>
</tr>
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</table>

The workshop culminated in a discussion to define the abilities and skills that ABU MPH graduates are expected to demonstrate, taking the health and developmental needs of the country, especially in the northern zones of the country, into consideration. Key competency domains were generated (Figure 1) and a preliminary draft of competencies was developed.

![Figure 1: Key competency domains that ABU MPH graduates should demonstrate](image)

**Department of Community Medicine retreat**

The departmental retreat was facilitated by an independent facilitator and aimed to begin to build consensus and a shared vision about the need to transform the MPH curriculum; to conduct a SWOT analysis of the department; and to define the mission, vision, goals and strategic directions of the Department. The SWOT analysis identified specific aspects related to the curriculum reform process and enhancement of the learning environment including the lack of teaching resources (finances, hardware, software and human), possibility of introducing blended or online learning and advanced short courses as well as capacity-building of staff. The preliminary draft of competencies was reviewed by all involved in teaching on the MPH programme and initial outcomes linked to these competencies were drafted.

**Independent Review**
Two experts in the field of Public Health (Emeritus Professor of Public health, UoA with extensive experience in developing country-contexts and a consultant in Public Health with the National Health Service in Scotland and a MPH alumni of ABU) were requested to independently review the proposed competencies and outcomes derived during the Departmental retreat. The reviewers were provided with background information on the current MPH curriculum and examples of assessments.

The report from the independent reviewers indicated that they saw this as an iterative process to provide peer support and guidance in the development of the programme. They endorsed the decision to reform to a competency-based approach, indicating that the ‘competencies need to be broad as graduates from public health training may work in a variety of fields including disease control, health education, environmental health, occupational settings, mother and child health, management, policy making and research’. They reported that the underpinning ethos of professionalism, continuous professional development, and contribution to national, regional and global development was commendable and that the commitment to being evidence-based was important. The external reviewers reported that they felt that the six domains suggested provide a helpful framework for grouping competencies. Additional learning outcomes were suggested for most of the overarching competencies. Some general comments regarding the balance between compulsory and elective/optional topics; access to online resources being essential and further development and assessment of competencies in practice through secondment opportunities after graduating were suggested as needs to be considered.

Teaching and Learning workshop
The one-week workshop started with an overview of the previously circulated reports from the Departmental retreat and Independent review. Suggestions from the independent reviewers were discussed and an updated list of competencies and learning outcomes was developed. Seminars of innovative teaching and assessment methods were presented by the UoA facilitator. These were followed by interactive sessions with the ABU teaching staff mapping the learning outcomes onto subjects/courses and a teaching and assessment matrix aligned to the six broad competencies. This involved aligning the preliminary competencies identified to the current MPH course content and assessments at ABU. The workshop culminated in a session where new courses were proposed according to the agreed competencies (Table 2). A draft matrix in the form of an Excel spreadsheet of learning outcomes and teaching and assessment methods was compiled from information provided by participants during the workshops.

<table>
<thead>
<tr>
<th>Current Course Name</th>
<th>Proposal for change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health services organisation and management</td>
<td>Health Services Management</td>
</tr>
<tr>
<td>Epidemiology principles and methods</td>
<td>Disease Surveillance and prevention, treatment and control of diseases</td>
</tr>
<tr>
<td>Health statistics and demography</td>
<td>Health Interventions &amp; Monitoring and Evaluation</td>
</tr>
<tr>
<td>Environmental health</td>
<td>Effective communication</td>
</tr>
<tr>
<td>Behavioural sciences</td>
<td>Partnerships and Community Participation</td>
</tr>
<tr>
<td>Occupational health</td>
<td>Research Methods</td>
</tr>
<tr>
<td>Reproductive health</td>
<td>Research Project</td>
</tr>
<tr>
<td>Epidemiology of communicable diseases</td>
<td></td>
</tr>
<tr>
<td>Health education and community mobilisation</td>
<td></td>
</tr>
<tr>
<td>Primary health care</td>
<td></td>
</tr>
<tr>
<td>Research methodology</td>
<td></td>
</tr>
<tr>
<td>General preventive medicine</td>
<td></td>
</tr>
</tbody>
</table>

Table 2: Current and proposed course names for the competency-based MPH curriculum
During the teaching and learning workshop, an independent consultant from the UoA was requested to explore the opportunity of using e-learning at ABU. The proposal is to provide flexibility and improve the geographical spread of students by providing an online version of the programme/selected courses in the future as well as the use of blended learning aspects within the MPH. This required an objective evaluation of the viability of using a virtual learning environment (VLE) at ABU. The MacArthur Foundation had previously provided additional funding to ABU to improve the IT situation at the University. The advantages found during this evaluation were that there is a new fibre-optic rollout providing a higher capacity data transfer and network rollout to Departments and hostels. Data is available via WiFi and a university-wide VLE is possible especially with the mobile technology available. The major constraints though are on a national level and revolve around a constant, stable source of power. There is a huge disparity in the age of computers in labs and massive costs for data packages are a further challenge. Resources within ABU are scattered at this stage with small pockets of expertise and interest but poor project management and limited sharing of resources or expertise in terms of e-learning. It seems there is a resistance to change generally and the underlying politics are a further challenge. It was suggested that Departments that share an interest in developing blended, online or distance learning should work together and share best practice and resources. The current project funding provides for some resource provision to improve the teaching environment (data projectors and computers, updated and relevant software and online library resources) for the MPH and these should be implemented.

**Capacity-building visits to Scotland**
Five senior members of staff from ABU spent two weeks in Scotland. The first week involved mostly aspects of developing research proposals, whereas the second week involved UoA staff sharing best practice and showcasing innovative practice of relevant courses and programmes. A further discussion regarding the proposed capacities, learning outcomes and courses was held with the two independent reviewers.

**DISCUSSION**
The collaborative process has had many advantages as well as challenges. The partnership forged has, and will continue, to expand the visibility of the Department of Community Medicine while resulting in an improvement in the quality of teaching and research within the MPH programme. The curriculum reform process has initiated team-building within the Department of Community Medicine and has impacted on the overall morale of the Department. Although there is a positive attitude and openness to change within the Department, internal politics and University-wide bureaucracy tend to negatively impact on the rate of progress. This has led to delays in the progress of the curriculum reform process. It would seem though that this is not unique to this collaborative work and is a common feature when working from a distance. One aspect that seems to be more common with African University structures is the lack of collaboration and sharing of best practice with other Departments. This is seen as an obstacle to the process and strategies to encourage this in the future need to be planned.

Although participation during workshop sessions in Nigeria was good (10-15 Departmental members attending most sessions), full engagement and buy-in of all departmental staff is essential for planning of a new curriculum. Once again, this challenge is not unique to this collaboration. It was suggested that the next workshop be held away from the University so that all would be engaged with the process all of the time. There is still some resistance to
change especially in terms of understanding that full curriculum reform to a competency-based (not content-based) curriculum is at the core of this process. Another challenge, shared with the University and country as a whole, is that of gender inequality. This challenges the process of curriculum reform throughout the process including strategies for student recruitment.

A challenge for the University of Aberdeen has been the movement of staff resulting in academic staff initially involved in the collaboration not being available to provide continuity. This is also not unique to this collaboration. Advantages to the University of Aberdeen include research collaboration and exposure to other curricula especially within a developing country context which supports globalisation of the curriculum.

THE WAY FORWARD
It was agreed that a variety of tasks need to be completed by ABU before the next workshop could be held. Teaching methods would need to be mapped onto the learning outcomes for each course. It is also very important that variety and innovation are considered in this step. The assessment methods, including the percentage contribution and notional hours must also be mapped onto the learning outcomes and once again include a variety in terms of method and type (Formative and Summative). The last step would be to calculate the notional hours (contact hours and hours students are expected to be engaged) for each course and then calculate the credits. The capacity-building visits to the UoA will continue and occur on an annual basis. Further visits to share best practice and investigate VLE usage are proposed for other African countries (Makerere University, Uganda; Moi University, Kenya and Stellenbosch University, South Africa). In the longer term, the implementation of the new outcomes-based curriculum will need to be evaluated.

REFERENCES
Association of Schools of Public Health European Region. Provision list of public health core competencies programme for public health education. Phase 1, publication 2. ASPhER 2007 www.asph.org/userfiles/GH_RG-for-workinggroup-Section-3.pdf accessed 8th December 2010
Davis MHY and Harden RM. Planning and implementing an undergraduate medical curriculum: the lessons learned. Medical Teach. 2003;25(6):596-608
Employability Plus - Enhancing Graduate Level Employability Skills

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ABSTRACT: Robert Gordon University's vision for employability is for its graduates to be recognised as the most fit-for-work, innovative, creative and engaged participants in the labour force and the economy and for the University to be recognised for its close engagement with employers. In 2013 the graduate labour market is increasingly competitive with an average of 52 applications for every graduate job (High Fliers Research, 2012). To ensure the continued employability success of its graduates, the University undertook a comprehensive engagement with key stakeholders and review of further enhancements which could be incorporated within the student learning experience at RGU. Employability Plus is a series of strategic enhancements to the core teaching and learning provision already recognised by both leading industry professionals and professional bodies as delivering a highly employable graduate for the 21st century.

1 Introduction

This paper gives an overview of the Employability Plus research informed by the Enhancement Theme: Graduates for the 21st Century. It focuses on 4 topic areas:

- SME Engagement
- RGU Global Graduate
- RGU Employability Skill set
- RGU Graduate Skill set

2 Background

Robert Gordon University (RGU), Aberdeen has a strong reputation in Scotland and beyond, as a distinctive university leading and shaping the debate on the future of higher education and placing students at the centre of the education it offers. It is a modern University with key teaching and research interests positioned in vocational areas of Business, Health and Design & Technology. The University has an enviable graduate employability record, ranking within the top 5 UK Universities for graduate employability and recently noted Best UK University for Employment (HESA, 2012).

However the University is not complacent about the success of its graduates. Graduate employability is a topical subject in Higher Education as all University's seek to produce highly economically active graduates. Research suggests that global uncertainty in the economy has led to graduates entering a crowded environment where there is fierce competition, with an average of 52 applications for every graduate job (High Fliers Research, 2012). Despite RGU's strong track record of educating highly employable graduates there was mounting evidence to suggest that employers were becoming more selective of candidates both at application and throughout the recruitment cycle.

The University's senior management team instructed a five month analysis of stakeholder opinion to critically review its employability provision to inform future strategic enhancements. The Employability Plus project was conducted in three phases; research, development of enhancements and pilot implementation of enhancements.

The research phase sought to gather data on current graduate recruitment practice through the use of a targeted online survey. This analysed key stakeholder opinions on recruitment and selection procedures and the core skills and graduate level competencies recruiters were assessing in the 21st Century.

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A series of follow-up face-to-face interviews was conducted with recruiters and University staff which provided a background to the data gathered in the survey.

The following key findings from the research were identified:
- RGU should further enhance business relationships with local SMEs to share and impart students knowledge and skills through project and placement work experience.
- In an increasingly global economy, graduates must be able to demonstrate their global and cultural awareness in relation to work.
- Graduates must demonstrate a range of employability skills in addition to their technical knowledge to be successful and thrive in the labour market.
- In a highly competitive job market, graduates must also understand what they are offering to an employer and demonstrate the confidence to articulate it throughout the recruitment process.

3 Research

3.1 SME Engagement

The research from both stakeholders and the literature review indicated that there was a new era of university and business collaboration that could be explored. In this challenging economy, the aspiration is an environment where both universities and employers work together to provide a seamless skills and education pipeline to meet their employment needs. Placements were highlighted as a specific example of how business, public sector, voluntary organisations could collaborate with higher education to gain a wealth of expertise from students across a wide range of subjects.

Robert Gordon University has established links with a range of businesses delivering placements, scholarships and translational research across all faculties. Placements are currently arranged for over 90% of undergraduate courses with a variety of employers. It was identified that existing practices relating to work placements could be enhanced through engaging directly with small and medium-sized enterprises (SMEs).

SMEs can find it difficult to recruit and retain the skilled staff they require and can often be the down to one individual to run the business and recruit new staff. Connecting small business to talented students could positively impact on the small business and provide the student the opportunity to contribute to a small business through project work, placement and research opportunities.

Given the success of the UG placement model, the University is investigating how this could be replicated across its PG portfolio to enhance its students' employability.

3.2 RGU Global Graduate

In today's fast-paced and globalised society, graduates are working in both small and large organisations on an international context, in international locations, on global projects and within diverse international teams. This theme of internationalisation has already been recognised across the three faculties with enhancements to the international experience delivered through teaching, learning, and assessments.

In terms of employability, this means that graduates are required to be mobile, be culturally aware and consider the wider global influences. In order to support its graduates to develop global competencies, the University will encourage all students to be geographically mobile and to take advantage of opportunities to enhance their employability. The University aims to
significantly expand the formal and optional study abroad opportunities through developing strategic links with new partner institutions.

Recognising that some students will choose to return to their home country or choose to work outside of the UK after graduation, the University will continue to develop relationships with international employers and explore the international graduate labour market to support students.

Through enhancing students awareness of the global opportunities that exist both for international and home and eu students RGU will equip students to be confident to compete in the global graduate labour market.

3.3 RGU Employability Skill set

It is widely regarded by employers that having a degree secures you the opportunity to interview, but demonstrating your employability skills gets you the job. In a recent survey CBI members ranked the employability skills of graduates as the single most important factor when recruiting graduates (CBI, 2012).

Employability remains at the core of the student experience at Robert Gordon University. The provision aims to ensure that students take advantage of these opportunities to develop whilst in Higher Education. There are a number of challenges faced in engaging students with employability that we seek to address in stimulating and motivating them to evidence and articulate their employability.

To better prepare graduates and enhance their employability skills, the Robert Gordon University will expand the range and provision of careers education and support to better equip students with the skills to perform effectively in contemporary recruitment and selection procedures. The University will also increase students’ awareness of self-employment, voluntary and the third sector opportunities and continue to provide students with a diverse range of opportunities to connect and network with Careers & Employability staff, Alumni and Employers.

3.4 RGU Graduate Skill set

In order to be successful in the recruitment market students must be able to differentiate themselves from their peers. To be able to do this students need to have an understanding of their skills, motivators and attitudes in relation to work. Therefore the student’s ability to articulate this throughout the recruitment cycle will be their differentiating factor.

Research suggests that this can be a challenging area for a student or indeed a graduate. To better support students to succeed in understanding their self-awareness, the University will provide a range of opportunities for students to explore and discuss their attitudes, skills and motivators to work.

Additionally the University will inspire, motivate and support all students with their student experience at RGU to engage in enterprise, leadership, volunteering or cultural and sporting engagement, and to reflect on and record their associated personal development acquired.

Through evidencing their personal development Robert Gordon University will develop all students’ ability to understand their individual skill set and how they can articulate these to employers throughout the recruitment and selection processes.

4. Enhancements
Actions for RGU in Session 2013-14:
Through engagement with SME sector RGU will increase the number and range of work-related opportunities available, particularly within the taught postgraduate courses. Through new partnerships RGU will significantly expand the formal and optional study abroad opportunities
Through enhancing and expanding the range and provision of careers education and support to all students RGU will develop students' confidence in the recruitment cycle. Through offering new opportunities and providing support for students to assess their self-awareness and act on the results of this information RGU will develop confident and articulate graduates.

5. Conclusion
The graduate employment market has become increasingly competitive and is a situation that is likely to prevail for some time. Employers are now more demanding in what they seek from applicants. Robert Gordon University is in a strong position for employability but recognises that strategic enhancements are required to its current practices to enable all graduates to demonstrate the key knowledge, skills and attributes required for their profession / career.

Through providing students with additional opportunities to engage with these enhancements RGU will continue to enhance its graduates to have the Employability Plus.

References


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Improving Communication Among Faculty Located on Twenty-five University Campuses

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ABSTRACT: In an attempt to embrace the challenges presented in higher education along with the opportunities available in ever-changing technology, National University chose to bridge the chasm between traditional storage systems to the use of social media. This action research helped to monitor and administrate the change of systems described as conflicting interests and desirable outcomes. Information from other university systems are reviewed to provide procedural base. The process started with surveys that collected information from faculty, staff and administration on experiences and attitudes using social networking systems. Current configurations of the Community home page are described, using widgets and file sharing to help with development of programs and documents. The National University System provides education to students around the World. Having a social platform, which allows faculty and students from disparate regions share and collaborate in building a collective knowledge-base and establish learning networks empowers the learner and the community.

Keywords
social media, higher education, technology-enhanced learning, effective communication, learning community

1. Background Information

National University is one of the largest private non-profit universities in California, with twenty-five campuses in California and Nevada, and online information centers located across the United States. The School of Education at National recommends the largest number of candidates for special education credentials in the state and has over 5,000 students currently enrolled in either a credential or a master's program in special education. These programs are taught both face-to-face and online providing candidates numerous opportunities to become certified to teach children with disabilities. Maintaining effective communication among the full-time professors, associate professors, and adjunct instructors is an ominous task at best. Information regarding programs materials, syllabi, common core state standards, requirement and regulation changes, and professional development opportunities must be shared with over two hundred full-time faculty and about two thousand adjunct faculty members on a regular basis, a requirement for compliance in preparing future teachers as well as other professionals.

Until recently National University, and more specifically the Department of Special Education, was using a web-based site where faculty members housed files that were shared with other instructors, from across the state and campuses, who were teaching courses. As a part of a regular review and budget planning process, the cost effectiveness of this web-based came into question. Additionally, with advances in online technologies, other options were reviewed and the use of a social learning platform was investigated and determined to be a more effective way of sharing information. However, the process of effectively transitioning faculty to the new platform was another matter.

During the past five years, the change in the use of the Internet has pushed users from posting documents to interacting with other people in real time. In 2000, while teaching online was still in its infancy, National University adopted the eCollege Learning Management System (LMS) to deliver content in online courses. Students were limited in
learning information from text-based content formats and interacting through posting messages with each other in threaded discussions. Today, students can have access in course to streaming video, podcasts, collaborative document creation and synchronous chats. In order for instruction in this format to occur in a highly productive and engaging environment, instructors must be trained and have a forum in which effective communication is ongoing, current, and relevant to what they are teaching.

In preparing for this research project, we have investigated other institutions of higher education have initiated in using the internet for communication, the development of resources for teaching, and in research development. The following section synthesizes the historical orientation to the development of use with the internet to share documents, collaborate, and teach on-line in higher education.

2. Review of the Literature

Kulkaska-Hume (2010) reviewed issues as to how educators are able to share expertise and learn informally through social media and online support. She commented that mobile technology has become a catalyst for learners where they choose their own setting according to their own preferences. An international survey was completed across Asia, Europe, and the UK, and she found mobile tools are used extensively, developing the individual's receptiveness to digital competence. She strongly recommends that social / community interaction via social applications on the phone, browsing websites, and sharing pictures is a prominent feature in how people are learning. Recommendations were made for education to embrace the mobile technology as it supports learning. In this way, the new learning culture could become shared projects between learners and teachers. She later suggests that faculty need to adapt to advancements in technology so that they continue to be a professional role model to students as it applies to lifelong learning (Kulkaska-Hulme, 2011).

Dron, et. al. (2011) made a compelling argument for switching learning environment contexts to include online social spaces to help with communication, in relationship to education and collaboration. The argument they presented requires building networked communities for users, who have a variety of opportunities for sharing information and collaboratively creating content. Community of practice allows individuals to network with others around a shared interest. An individual's level of community engagement is generally contingent on the relevancy of the community's domain area to the member's engagement. Authority is dispersed while creativity and possibilities have less limits.

Recently, Bettoni, et. al. (2011) designed an online course utilizing eCollaboration to help orient staff and faculty to the possibilities of developing a sense of social learning as it relates to teaching materials online. They support the concept that learning is primarily a social phenomenon, and networking with others is part of the learning that results within the community. Their conclusions included some of the following ideas: that learning online best results collaboratively through experiential learning; participants are key to the learning resource; changing from an e-mail to an eCollaboration work-style is not easy; and that management support needs to be visible periodically throughout. These factors were seen as important in changing into a collaborative mode for teaching at the university level.

Further studies using social networks were completed by Forkosh-Baruch and Hershkovitz (2012) in Israel and then by Namahoe (2012) at Indiana University. Both of these studies described initial projects in developing courses to assimilate real-life situations involving new technologies. These studies describe research at the onset or their development.

In essence, the field is at its beginning stages and is perceived as an important avenue for connecting with a wide-variety of opportunities to facilitate learning and collaboration with others. In fact, recent studies show that the use of social networks have risen 44% in public education in the United States over the past two years (Bollan, 2013). Yet higher education seems to resist its usage.

Recently, National University chose to connect with GoingOn, a web-based company providing an academic networking platform, enabling faculty, administrators and students to connect, collaborate and learn. Within this site a private network of communities were
developed where faculty can connect with one another to dialog about instructional strategies, relevant technologies, as well as events and course content. The decision to develop an online social learning network was born out of the faculties’ desire to have an online environment, allowing them to connect with colleagues scattered across disparate regions.

The purpose of this ongoing action research was to determine the use of community learning environments by the University and to examine specifically the Special Education Department’s development of a community of practice. Subsequently it is hoped this research project will showcase effective implementation of strategies for helping community members adapt to the social learning environments through training and shared work narratives, with the goal of improving the abilities and communication needs of all faculty members involved. Ultimately, and in process is the development of a shell used to connect with students and share information within this format.

3. Methods
In 2007 National University implemented a file sharing platform NU-FAST. The site was a state of the art platform for shared document storage and opportunities to create content related threaded discussions. The file storage was based on the hierarchical tree folder file structure. The platform was used heavily by only few programs, but was not widely adopted across National University’s five Schools. After a regular technology and budget review, it was determined NU-FAST’s cost was not supported by its usage and was then slated for termination. After two years of investigation and review of social learning technologies the GoingOn platform was licensed for the creation of networked communities of practice with the National University System.

Step 1. To help with transition to the use social media and updated technological interfaces for communication, data was collected from surveys given to two different resources: 1) new users of the online Faculty Community and 2) the Special Education faculty.

The first survey given to all new community users, regardless of University role as faculty, administration, or staff was designed to collect background information on attitudes and the use of new technologies in the workplace. The use of social media, applications and the extent of social networking was collected. And finally information was collected regarding general impressions regarding the use of social media / and related instructional technologies in the classroom or workplace.

The second survey collected information in May, 2012 from Special Education faculty regarding their use of technology, especially in relationship to specific access to social media, the iPad, and applications that might facilitate teaching both on-campus and online, including usage when traveling out of the country. This survey was designed to help facilitate transition to the new website referred to as the Special Education Community as well as use of new iPads that were distributed to help with using the new technology. Information was collected regarding perceived self-confidence in use of digital technology such as cell phones, e-mail, Skype, video chatting and social networks. An inquiry was also made into the faculties self-perceived ability to integrate technology into their teaching as well as the desire to implement emerging technologies into their classrooms. And finally, they were asked whether or not incorporation of new technology would make them better teachers and more responsive to their students.

The information from these two surveys was collected as a baseline for administration, staff and faculty to help establish where support was needed and what should be to develop the National University Community and affiliate shells to help meet communication needs that would ultimately facilitate teaching and communication with students around the world.

Step 2. The survey results were analyzed and the data is presented in the following charts.

Question: In terms of adopting and incorporating a variety of new technologies in the classroom or workplace, I consider myself an early adopter and I like to be on the leading edge.
<table>
<thead>
<tr>
<th>#</th>
<th>Answer</th>
<th>Response</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Strongly Disagree</td>
<td>16</td>
<td>5%</td>
</tr>
<tr>
<td>2</td>
<td>Disagree</td>
<td>14</td>
<td>4%</td>
</tr>
<tr>
<td>3</td>
<td>Neither Agree nor Disagree</td>
<td>54</td>
<td>16%</td>
</tr>
<tr>
<td>4</td>
<td>Agree</td>
<td>138</td>
<td>41%</td>
</tr>
<tr>
<td>5</td>
<td>Strongly Agree</td>
<td>114</td>
<td>34%</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>336</td>
<td>100%</td>
</tr>
</tbody>
</table>

Question: When I am provided with a new technology to work with I need little to no personalized attention, as long as I have access to documentation or other online support materials.

<table>
<thead>
<tr>
<th>#</th>
<th>Answer</th>
<th>Response</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Strongly Disagree</td>
<td>11</td>
<td>3%</td>
</tr>
<tr>
<td>2</td>
<td>Disagree</td>
<td>45</td>
<td>13%</td>
</tr>
<tr>
<td>3</td>
<td>Neither Agree nor Disagree</td>
<td>59</td>
<td>18%</td>
</tr>
<tr>
<td>4</td>
<td>Agree</td>
<td>148</td>
<td>44%</td>
</tr>
<tr>
<td>5</td>
<td>Strongly Agree</td>
<td>73</td>
<td>22%</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>336</td>
<td>100%</td>
</tr>
</tbody>
</table>

Question: Do you use social media applications (i.e. Facebook, LinkedIn, Twitter) in your personal life?
<table>
<thead>
<tr>
<th></th>
<th>Answer</th>
<th>Response</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Strongly Disagree</td>
<td>10</td>
<td>3%</td>
</tr>
<tr>
<td>2</td>
<td>Disagree</td>
<td>6</td>
<td>2%</td>
</tr>
<tr>
<td>3</td>
<td>Neither Agree nor Disagree</td>
<td>75</td>
<td>22%</td>
</tr>
<tr>
<td>4</td>
<td>Agree</td>
<td>150</td>
<td>45%</td>
</tr>
<tr>
<td>5</td>
<td>Strongly Agree</td>
<td>95</td>
<td>28%</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>336</td>
<td>100%</td>
</tr>
</tbody>
</table>

The following data was collected from the second survey, from the full-time faculty in the Special Education department: Thirteen of the twenty (65%) faculty members completed the self-assessments. Seventy-seven percent of those who responded indicated they were somewhat comfortable with digital technologies and used cell phones, email, Skype, video chat, and social networking applications. Most faculty members (69%) are fulltime and 92% have been with the University for more than 3 years. On a scale of one to five, with five being the highest, 31% rated their ability to integrate technology into their teaching as a two, 46% rated themselves a three, and 23% a four or five. In terms of their desire to implement emerging technologies into their classrooms, 46% rated their desire as a four or five, 31% rated it as a three.

Seventy percent of the faculty members never used iTunes or only a couple times a month and 54% have never used an iPad or some other tablet. When asked what motivated them to use an iPad or other device in their classrooms, 69% said they wanted to improve student learning, 39% wanted to address varied learning styles and 62% said they wanted the ability to provide anytime, anywhere learning opportunities for their students. Forty-six percent...
indicated it was an expectation from their school or program leads, which means almost half of those who responded felt using devices in their classroom was being imposed on them. Yet, 85% of the respondents felt the iPad would make them a better teacher and more responsive to their students. In terms of the support needed to use effectively interactive devices, 100% responded small group instruction followed by one-on-one training (62%).

**Step 3.** A group from the Faculty Community was developed for the Special Education department where programs could be shared and discussed. Since a new credential program had been created to align with revised standards with the State of California - this was the ideal time to make sure that all faculty were able to share new courses, rubrics and trainings required to make sure that all those teaching were familiar with activities, grading and standardization needed across the state. Drop-down menus were created for different parts of programs as needed to facilitate organization of finding the necessary information. Faculty were trained on the new system as well as became acclimated towards a new multi-level search feature. Information was no longer provided in a traditional "tree structure " with files, but could be found with "search" capabilities according to 'tag words' provided. Data is continuous being collected according to faculty's comfort level in navigating and communicating through this new system.

**Step 4.** A follow-up survey regarding the use of the Community was developed to measure the comfort level of all users in the National University system. Collection of this data is currently in process and will be reported as it becomes available. It is anticipated that in June, 2013, preliminary data will be reported.

**Step 5.** A web-site is being developed to share programs to students. At this time, the Department of Educational Counseling has developed a part of the Community where students can access courses and design their own programs. Introductory information is provided to help them get started. It is anticipated that the Department of Special Education will soon follow in this venue.

**4. Discussions and Conclusions**

In review of the data collected, those who responded to the University survey have been involved with social media and see the potential in using these tools educationally. They are open to the NU Community and see networking as valuable to the success of their practice in teaching and connecting with students both nationally and internationally.

The Special Education faculty is somewhat resistant to new technology being imposed upon them yet also feel that use of emerging technologies will make them better teachers, and more responsive to their students.

In summary, the total faculty that answered were receptive and see the use of social media in communication and collaboration as part of success for the university. The Special Education faculty were receptive to the development of the Community but have concerns with mandatory requirements in using new technology.

To develop a solid network of learning for University faculty will require the delivery and ready availability of application training opportunities, as well as encouraging contributions to the shared work narratives. Ultimately the faculty member's experiential understanding of online social learning will support a model learning environment, which will serve student's education goals regardless of their geographic location.

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**References**


Kukulska-Hulme, A (2010). Learning cultures on the move: Where are we heading? *Educational Technology & Society*, vol 13, no 4, pp 4-14

Kukulska-Hulme, A (2012). How should the higher education workforce adapt to advancements in technology for teaching and learning? *The Internet and Higher Education*, vol 15, no 4, pp 247-254

Openness and Practice: Innovations through Openness in Partnership

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Abstract

At the Open University in Scotland (OUiS) being open is part of our sense of who we are through open licences like Creative Commons we have developed suites of Open Educational Resources (OER) which are "freely" available online to use, to reuse and remix. However, while there is great deal of rhetoric around OER, it is not clear how openness is changing practices. The paper explores this through two case studies. The first case study draws on work the OUiS has done with a national charity that supports community energy projects. The second case study will draw on some work with a regional charity that provides home energy advice. It looks at how we can develop appropriate energy advice by working with tenants and the charity to create a series of home energy OER by tenants for tenants. The paper closes with some question about the sustainability of "free" resources.

Keywords: OER, OEP, Partnership, Practice

1. Introduction

At the Open University (OU) in Scotland being open is part of our sense of who we are, as an open and distance learning provider our message is that we are open to people, places and ideas. The open narrative on which the OU was founded over 40 years ago was about open access, life long learning, first and second chances, and promoting social justice. Over the last two decades open has also become associated with open and accessible content, Open Educational Resources (OER), and the OU has embraced that shift. In this paper we explore what means for the OU in Scotland and look at what we have learnt from our experiences. Using two case studies that focus on the design and development of OER we look at some of pressing issues that have emerged, make an early assessment of how (and whether) OER has the potential to destabilise present HE, then look at models that promote the sustainability of these initiatives.

2. Open Educational Resources and Practices

The OER movement was kick-started by the release of MIT’s OpenCourseWare in 2001. Since MIT’s decision to make some of its content “freely” available on the internet many other HE providers have followed suit.

The OECD define OER as

"...digitised materials offered freely and openly for educators, students and self-learners to use and reuse for teaching, learning and research" (p10, OECD 2007)

As well as the materials the report also noted the importance of the tools (software) to facilitate sharing, reuse and adapting those resources. It is difficult to discuss OER without reference to the means by which content might be shared (typically online), or about the licensing that facilitates that openness. As an organisation our main OER focus has been on the medium of exchange (online), and the licence that appears to facilitate that exchange. Not all readings of OER focus on the digitising of materials and some account for other mediums by which materials can be made publicly available (Atkins et.al 2007), but licensing...
remains key. The most common licence (only just over a decade old) is Creative Commons (CC). In "The Power of the Open" the people behind the CC licence indicate that "our vision is nothing less than realizing the full potential of the Internet - universal access to culture, education and research - to drive a new era of development, growth and productivity" (p6, Creative Commons 2010).

For HE, this contrasts with the normal HE approach where providers develop and manage knowledge and release it to select people, normally in particular places at particular times. While the question of licensing may only be an issue for the provider, and is not always an issue for the learner. Clearly openness has a huge potential to destabilise the typical pedagogical relationships that have developed within the HE sector.

This presents HE with opportunities and challenges. At a strategic level the opportunities have been presented in two distinct ways. The altruistic and the self-interested (McGill et.al 2011). The altruistic set focuses on the emancipatory nature of OER as a way to break down barriers to HE access for students, but often for HE providers in the majority world. This "Social Justice" perspective highlights the ways that freeing up knowledge can benefit those people who might not otherwise be able to access education (dos Santos 2008). However, the altruistic narrative can be difficult to sustain. These resources are only free to a point, and only accessible to a point. While the medium of exchange (the internet) offers the chance to access content, it is only for those who have access to the relevant infrastructure, and this is an issue for those in the minority and the majority world (Willems and Bossu 2012). Even where it can be accessed, design decisions can effect the accessibility of content. For example, a JISC report on OER (Masterman and Wild 2011) highlights the granularity of resources, with educators and students requiring smaller and more adaptable OER that they can use in "their" own context. The proliferation of content leads to accessibility issues around the storage and the findability of relevant and appropriate content (Olcott 2012), and the provenance (trustworthiness) (Masterman and Wild 2011) of that content.

We can see that accessibility is not free for the user, and it is not free for the provider. Most of the funding for OER has come from charitable foundations. The short term nature of these funds within an uncertain HE economic landscape means that the altruistic ideals of openness need to be tested against the reality - an neo-liberal education sector where "common good" rhetoric behind OER comes into conflict with the "business model". This is where self-interest comes in. The self-interested set focuses on the way that OER can enhance individuals or an institutions reputation, cost savings in developing materials, and articulation from OER into paid content. Recent reviews of OER policies within HE that looked at the strategies and views of academics and senior managers found that those that produced content were interested in individual reputation and cost (time/money savings) associated with OER, and those who manage education focussed on institutional reputation and articulation from informal to formal learning (Nikoi and Armellini 2012).

That is production, which so far has tended to be the focus of activities, questions around remixing and reuse are harder to answer. Outside of specific projects (e.g. TESSA) it is hard to find evidence of reuse and remixing; partly this might relate to the open licence, where the very openess of the content means that people can be reusing and remixing without you knowing (McAndrew and Cropper 2010). There is also an argument that the reason that there is a lack of research on how effective OER are is that HE institutions are often uncertain about the purpose of OER - e.g. altruism or self interest (Nikoi and Armellini 2012). However, it also appears that institutions have been better at creating OER than they have been at reusing OER, either internally, or across the sector. Some commentators have begun to argue that content is now at saturation point (Conole 2012). Behind this argument of content saturation is a sense that we need to move beyond the content and start thinking
about the practices. Thus we see a move within the literature to talk about Open Educational Practices (OEP) as well as OER. It is how we use OER in practice. It means shifting our thinking about OER from production, to what users need and how to support those needs (Blackhall 2011). It may also mean thinking about whether we risk imposing our ideas of openness on learners, and reflecting on how practices around openness might reconfigure practice for educators and learners. The review has touched on what users need to be able to use the resources in practice. They need it to be relevant to their needs, for example the TESSA programme (Wolfenden 2012). They need to be small "bit size" so that they can be used and remixed in and for different contexts (Masterman and Wild 2011). They need to be stored and structured in a way that means they can be located, and in a format that allows users to reuse and remix them (Olcott 2012). Provenance is an important area are study of learners accessing HE OER found that users have to be able to trust the source of information (Masterman and Wild 2011), though we need to be careful as trustworthiness may not only be an academic attribute, but may come from informal interactions within peer networks or other sources.

The structure and storage of OER is key to its accessibility, and the OU is a global player. For example, in 2011 the OU reported that it had 16 million unique visitors to its open platforms, and nearly ¼ million registered users on OpenLearn and LabSpace (Lane 2011a). Of those registered users only 10% are present OU students. Most of the other registered users appear to be students at other HE institutions or informal learners (Lane 2011b). Clearly figures like this demonstrate that the OU is a major global player in producing and disseminating OER. The OpenLearn platform is reserved for OU content, either from existing modules or bespoke, and this draws on a fairly standard marketing led model of OER that focuses on production. Labspace is different. Here the OU stores content created by other HE institutions and/or material it has created in partnership. It is within these collaborative spaces that we start to see the emergence of new educational practices. For example, the review noted the evolution of the work in the South West, in 2008 (Lane 2008) it was reported as being a interesting series of workshops using OER, now it is fully fledged Widening Participation (WP) that provides routes into formal learning. Key to the success of projects like this is recognising that the academy is not the only source of education materials. Thinking about practice means we move away from OER's as an end in themselves, and think about how they can reconfigure education practice (McAndrew and Cropper 2010). In the next section we look at how we have accessed practice through our engagement with third sector partners.

3. Case Studies

This section introduces two case studies as examples of our work around openness and practice in partnership. The focus on practices outside the academy naturally asks you to consider practices within the academy. Therefore, these are reflective accounts that eschew theorising in favour of a "warts and all" account.

3.1 Supporting Communities to Reduce the Energy Use of Community Building

This case study is based on work we have conducted with a charity that supports communities looking to improve the energy performance of community buildings. Our partners support for communities tended to be reactive, individualised, face-to-face and "just in time". It has built is organisation round a distributed network of support staff who can react. However, as the sector has grown so it has become over-stretched and less able to provide the tailored one-to-one support it had in the past. It needed a more structured and consistent set of support materials. It had begun to assemble all its individual information sheets into one single (but very large) "toolkit" that was open but not accessible (Olcott 2012). Our early engagement with the partner focussed on our role in providing storage and structure facilitate openness.
Community energy projects have a number of different components, requiring a broad range of knowledge skills and experience. Typically having identified a need to consider energy in their building they will need to; analyse bills, conduct an energy audit, inspect the building and look at feasibility of different options, consult with the local community, raise finance, select and manage contractors, and conduct ongoing monitoring. These are a complex suite of practices. Our partners knowledge of those communities learning journeys meant we could create a structure that reflected how people actually developed and used knowledge and skills. However that knowledge was held at the individual level. Exploring this with our partners we looked how a persona or scenario's (Holtzblatt & Beyer 2013) based approach might help us capture and codify that individual knowledge, allowing us to understand communities learning journey's. The need for a clear narrative within the materials led us to develop a series of "imagined communities". We asked front line staff to develop a narrative that accounted for their experience of supporting community groups. We then looked at how that learning journey might be supported through OEP, rewriting the narratives to account for a learning journey where communities could developed the skills themselves rather than calling on outside experts. It is based on a team approach with a range of authors working together to create learning materials. We adapted this model in the partnership, shifting power relationship, and creating a joint OU/CES team to develop materials that accounted for knowledge, skills and expertise outside the academy. Here openness shifts the focus of our production model, it also provides as welcome disruption to the normal HE pedagogical model.

These knowledge and skills need to applied to a series of tasks. Learning is through "doing", engaging with techniques and technologies in the material world (Fenwick et.al 2011). Learning is shaped by those material relations and the material fabric of of the building is in turn shaped by what has been learnt. This is "citizen science" or "enquiry based learning" (Scanlon 2012) with very tangible outcomes. Content needs to structure "enquiries", guide tasks and provide a way to record and analyse "data". We used the "imagined communities" to show how data is collected, the data outputs, analysis, and interpretation. These are not individual learning journeys. Each person within the group takes a different role and uses different resources. Learning is shared, in terms of the knowledge and skills required, and also the outcomes. Within our "imagined communities" we allocated different sets of existing skills, and different roles to different people in the community to illustrate the different ways people might use the resources. This means resources whose "granularity" and flexibility accounts for collective learning journeys. you

When working with Third Sector partners capacity is sometimes a problem. For example, for the the partners uncertainty over funding can mean that projects are often interrupted. The case study presented here has stalled at the implementation stage, with concerns over funding and staffing meaning the module is not being used consistently within operations. The focus on practice also creates capacity issues for us. For these communities success is measured by improving the energy performance of their building, that can take up to three years. It seems that one thing we ought to recognise is that engaging in partnership to support material actions is likely to require us to take the long view. We need to "take time" to assess the value of our work, these delays may mean that we need space to and time to manage relationships long term. This has resource implications, and suggests that if we are to move beyond content and resources to consider practice then we need to look more clearly at how we resource that engagement.

3.2 Working with Communities to develop Energy Advice Literature

The second case study also focuses on energy management. Our partner provides energy advice and leads on campaigns and actions that tackle fuel poverty. They work with other charities, local authorities, and housing associations to achieve their aims. Our relationship
with them is based on consultancy work we have undertaken for a Scottish local authority into the user experience of social housing tenants who live in newly built low energy homes. Our technical monitoring of the buildings found that the low energy bills that were expected did not always materialise. Through our qualitative work we began to explore why that was. Finding that people found it difficult to adapt to what were novel energy management practices. In part that related to design issues that created a complex energy management system of overlapping technologies, in part it was technical problems, and in part it also related to poor and contradictory advice supplied by "officials" who ought to have been trusted sources.

Overall the complexity of the systems and the distance between these new energy management practices and those they were familiar with appeared to be at the root of the problem. We began to conceive of the research as relating to adaptation and learning, not only for residents, but for developers and local authorities. Our approach to the research was to recognise that people are experts in their own lives. This recognition led to a focus on how tenants engaged with the systems in their homes, those socio-material/technical relationships (Sorensen 2009), and from this a realisation that residents had developed a richer understanding of "how thing worked" than existing expert or technical guide.

We wanted to work with these tenants to explore how we might use the knowledge they built through practice to help others, to support the development of knowledge for practice. As a learning provider that often works with uncertain learners we would consider ourselves well placed to support the shift from thinking about those outside the academy as consumers of knowledge to recognising and supporting them as producers. However, our previous experiences of engaging in partnerships to support and develop knowledge for practice has told us that we need to do engage with trusted local organisations to ensure that the materials are used and the long term sustainability of their use. Hence our engagement with a local organisation that already provides support to social housing tenants. This takes time, and we are just beginning the process now (April 2013). The conference paper itself will report on the outcomes of that work.

4. Conclusions

On the surface what these examples have in common is the use (or creation) of open licensed material. However, for us the similarities are illustrate a deeper trend, the ability to pursue opportunities that were previously closed to HE. They highlight opportunities to collaborate with organisations outwith the formal education sector. Part of that is leaving behind institutional concerns about IP. The "freedom" that this type of open provides leads us to think about openness more generally. Co-producing content that is relevant to our partners, and opportunities to access new kind of learning spaces, for example within work or in a community context. It also offers the opportunity to explore new models of learning, situated learning, informal learning, and inquiry based learning.

Opening up these possibilities is not without its problems. These case studies focus on the pedagogical design of the materials rather than the outcomes for practice. They focus on that aspect for very practical reasons, it is because our focus on practice and working with people outside the academy to co-produce knowledge takes time. This leads to the question of finance; how do we pay for “free” OEP? At present it relies on charitable foundations, central government and the marketing arm of HE providers. It is not seen as something that ought to come out of central HE funds, it is not seen as teaching. In two of the case studies the delivery and development of materials were funded as a service to a third party. This "service" model may be the way forward, certainly the projects that are emerging in 2013 are based on this approach. Careful evaluation of these is required, not just the pedagogical models and how it enhances our understanding, but how socially useful it is, and economic
analysis of cost benefit. If that takes time, and our work suggests it does, then we must also look at how we can account for that in our development models.

5. References


Conole G. (2012) "Fostering social inclusion through open educational resources OER", 
Distance Education, 33, 2, 131-134


- (2011a) "Best Practice Report on Widening Participation in Higher Education Study through Open Educational Resources", European Association of Distance Teaching Universities, Heerlen, Netherlands

- (2011b) Adding flexibility to higher education using OERs: lessons from the Open University" In: Burge, Elizabeth; Campbell Gibson, Ch`ere and Gibson, Terry eds. Flexible Pedagogy, Flexible Practice: Notes from the Trenches of Distance Education. Issues in Distance Education . Edmonton, AB: Athabasca University Press, pp. 139-147.


Masterman L. Wild J. (2011) "JISC Open Educational Resources Programme: Phase 2 OER Impact Study", 
http://www.jisc.ac.uk/media/documents/programmes/elearning/oer/JISCOERImpactStudyResearchReportv1-0.pdf, last accessed 16th of August 2012

Nikoi S., Armellini S. (2012) The OER mix in higher educational purposes, process, product and policy" Distance Education 33, 2, 165-184

Olcott D. (2012) "OER perspectives: emerging issues for universities", Distance Education, 33, 2, 283-290


Scanlon E. (2012) "Open educational resources in support of science learning: tools for inquiry and observation", Distance Education, 33, 2, 221-236


Willems J., Bossu C. (2012) "Equity considerations for open educational resources on the glocalization of education", Distance Education, 33, 2, 185-199

Wolfenden, F. (2012). OER production and adaptation through networking across Sub-Saharan Africa: learning from TESSA. In: Glennie, Jennie; Harley, Ken and Van Wyk, Trudi eds. Perspectives on Open Educational Resources (OER) as a Catalyst for Educational Change: Case Studies and Reflections of Practice. Vancouver, Canada : Commonwealth of Learning, (In press)
Perspectives in applied academic practice: development of a cross-institutional open access journal to support early career academics

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Abstract
Engagement in the scholarship of learning and teaching contributes to the enrichment and enhancement of academic practice. One method of engagement is through contributing to the scholarly discourse by publishing in academic journals. The publication process however can be daunting for the uninitiated, with high levels of competition and equally high rates of rejection. Project work produced by academic developers or students on postgraduate education programmes as part fulfilment of their academic programmes of study are often of publishable standard, yet publication rates from such scholarly outputs remain relatively low. The paper outlines a collaborative initiative developed by staff from Edinburgh Napier University, Aston University and the University of Dundee to implement an alternative publishing route designed to support staff new to academic publishing, and students on postgraduate programmes in education, to publish their work in a supportive environment as part of their first steps to becoming a published scholar.

1 Introduction
In recent years there has been an increasing recognition of the importance of the scholarship of learning and teaching, and the benefits this can bring in terms of enhancing and disseminating good academic practice (Hutching, Huber & Ciccone, 2011). This has contributed towards, a greater recognition in the scholarship of teaching and learning practice as an important area for academics within the disciplines to engage in. In short, research and scholarship in learning and teaching is no longer seen as the domain of academics who are specialists in education, and many institutions have developed a number of activities to support scholarly engagement in learning and teaching (Kreber, 2010; Lee and Boud, 2010). Despite these advances significant challenges remain for academics seeking to engage in the scholarship of learning and teaching, particularly where they are aspiring to publish their work in relevant journals. Writing out with the conventions of their own discipline area can potentially be daunting, as can the thought of being in competition with more experienced educational specialists, and subjecting their work to peer scrutiny. Equally, although perhaps less well recognised, there are also challenges for more experienced academics who have successfully published on aspects of their educational research or practice, and who may now be looking to broaden their professional engagement in education as a discipline by becoming involved in the peer review process or in an editorial capacity with relevant periodicals.

This article describes the development of a new open access online journal in academic practice which has a unique developmental focus. It will explore how a truly open and developmental ethos (characterised by practices including structured support for new authors, a non-blind peer review process, open licensing, and editorial internships) can empower academics in becoming engaged contributors to the published discourse on effective learning, teaching and assessment. The idea for the journal stemmed from a plenary presentation at the Spring Staff and Educational Development Association (SEDA) Conference in 2012 where Dr Helen Walkington presented the development of the open access journal, GeoVerse, which is a journal aimed at promoting the engagement of undergraduate students in research.

2 Open access publishing
The landscape of open access publishing has gained momentum in recent years with the advances in technology enabling authors and publishers to make scholarly works more readily available (Weller, 2011). Within the UK open access publishing has become a serious issue for higher education institutions as a result of the Finch Report (2012) which examined the ways of providing better, faster access to research publications for anyone who wants to read or use them. Previously most journals were published by large publishing houses and only accessible through subscriptions which limited accessibility. As a result of the Finch report the UK government announced that all publicly funded scientific research was to be available for anyone to read by removing subscription only access from April 2013.

Two main routes have been developed for making papers open access: green and gold. The green route is where an author deposits the paper in an open access repository. The most common type is university based research repositories. These routes have been the subject of much debate. The gold route is where the author or their institution pays a fee (access processing charge) to the publisher for their paper to be made immediately publicly accessible (Weller, 2011). The difficulty with the gold route for new authors is that institutional funds may not be available with the demands of the Research Excellence Framework (REF) placing emphasis on institutional support for established researchers. Our journal bridges this important gap by providing an outlet that is both open and subject to peer review, as well as providing support for new authors and opportunities for those wishing to gain experience in reviewing and editing.

3 Establishing the journal

The journal is a collaborative venture, initially between Edinburgh Napier University, University of Dundee and Aston University in Birmingham, with the Editorial Board made up of members from each of the collaborating institutions. An international dimension has recently been added with the introduction of a new collaborative partner with a representative of the University of Auckland in New Zealand joining the Editorial Board. The editorial team are all academics or academic developers involved in teaching on institutional programmes in academic practice in higher education. As part fulfilment of their academic programmes of study, students on postgraduate education programmes often conduct several pieces of project work which is often commented on to be of publishable standard, yet publication rates from such work remain relatively low. The development of the journal was seen initially as a way of encouraging and supporting these students to become published authors in the field of education however it quickly became apparent that the journal would have wider appeal and the editorial team agreed to develop the journal as an open access vehicle to support all prospective authors in the field.

The journal has an ISSN number and is indexed in relevant scholarly databases including ERIC, MEDLINE and CINAHL.

4 Journal ethos

The Journal of Perspectives in Applied Academic Practice (JPAAP) is a biannually published, cross-institutional open access peer-reviewed academic journal which contributes to the enhancement of the educational research infrastructure by providing a publishing outlet for scholarly work and acting as a vehicle for building capacity in academic publishing experience across the sector. The JPAAP aims to provide a supportive publishing outlet to allow established and particularly new authors to contribute to the scholarly discourse of academic practice (both generally and in their discipline area) through the publication of outputs that are theory-based and supported by evidence, as well as through the publication of Opinion Pieces and 'On the Horizon' papers on emerging work. In relation to the general ethos, the journal exists not simply for the publication of papers within our thematic scope but also as a collegiate and developmental platform for new authors, those new to journal reviewing, and for scholars who are seeking to gain experience in journal editing and publishing.

5 Journal themes

The themes of the Journal reflect the breadth of perspectives in academic practice from a wide variety of disciplinary lenses. The journal promotes evidence based academic practice
through the publication of papers that are theory-based and supported by evidence. The editors welcome submissions of articles, research notes, opinion pieces and book reviews. The types of articles we publish include:

**Original research**: formal research projects with appropriate analysis of data, either with a quantitative or qualitative emphasis or mixed method studies. Action research studies are also particularly relevant to practice development and are welcomed by the journal. All research projects published must have ethical approval.

**Reflective analysis papers**: reflective evaluations of academic practice, either practitioner based enquiry or reflections that challenge current practice and encourage experimentation, novel conclusions or offer new perspectives derived from prior work.

**Review papers**: Literature reviews illuminating new relationships and understanding, meta-analysis, analytical and integrated reviews, etc.

**Case studies**: Case study papers focus on examining academic practice in a particular context, drawing out lessons learned that are usually generalizable to a wide and multidisciplinary audience.

**Multimedia articles**: articles which are presented in multimedia formats offers an innovative way to present scholarly work in academic practice and is in keeping with current trends in digital scholarship and open publishing (Weller, 2011). Prospective authors are encouraged to approach the editors with ideas for potential submissions in formats other than the traditional paper.

### 6 Developing capacity in academic publishing

The developmental ethos of JPAAP manifests itself in a range of activities and opportunities that help create a supportive environment in which a culture academic scholarship and discourse can flourish. The journal provides support at every stage of the publication process. The journal's unique ethos extends to providing opportunities for staff to gain experience of the wider academic publishing process, engaging early career academics and researchers in both the peer review process and as editorial board members.

#### 6.1 Developing authors

The journal offers direct support for authors who are seeking to publish their first paper in one or more of the thematic areas of the journal, through assigning ‘critical friends’ from within the editorial team who are happy to advise on the development of initial ideas for the formats of paper we publish. Experienced authors are encouraged to publish as second authors, thus giving strong support for developing new authors. This model replicates the approach taken in similar university online academic journals (the "Care" journal at Glasgow Caledonian University, "Geoverse" journal at Oxford Brookes University and the "Scottish Universities Medical Journal" at University of Dundee) but is aimed at developing academic staff. The editorial team also provide online webinars for new authors to help provide a platform for development and discussion around the writing and publishing process, highlighting common errors and offering guidance on structural and stylistic conventions as pertaining to academic writing.

Academic peer review is a long-standing practice in the publication process, with blinded peer reviewing being widely seen as unbiased and impartial, however the authors of this paper consider that blinded peer review is not what sustains the integrity of the practice; rather, it is the shared belief in its importance, as well as providing an opportunity for further development (Biagioli, 2002). All articles submitted to JPAAP are peer reviewed by two reviewers. In an attempt to overcome the “nasty reviewer” experience the editorial team chose to make the review process open so that the names of the authors and reviewers were known to each other. This approach seeks to avoid the potential for bias incumbent within anonymous peer review and address perceptions that the process can be abused to delay or prevent work from being published (Peters, 2013). It is felt that this transparency is in keeping with the Journal's overarching developmental ethos and will result in the provision of more balanced and constructive feedback to authors.

#### 6.2 Developing reviewers
The Journal provides an opportunity for academics with experience in the thematic areas of the journal, but who are new to the journal submission reviewing process, to become involved as reviewers for the journal. An open call for applications resulted in the establishment of an extensive pool of appropriately qualified individuals who will serve alongside a group of established academics who are already experienced as reviewers. It is planned that reviewers will serve for a maximum period of 2 years to allow further individuals the opportunity to engage in the review process and gain this valuable experience. To scaffold the support of these new reviewers the Editorial Board complete the feedback loop by providing comments to reviewers relating to the feedback provided to authors. Through this dialogue Editors seek to highlight aspects of good practice and identify areas for development when the reviewer provides their assessment on future submissions. To facilitate wider discussion around peer review, online webinars led by members of the Editorial Board provide a platform for reviewers to engage in peer-to-peer discussion around the reviewing process.

6.3 Developing editors
Editorial internships are an additional way of offering experience in academic publishing. We will soon be offering editorial internships for academics who are experienced in the thematic areas of the journal, have some publications of their own and experience as a reviewer, and who wish to develop knowledge and experience on the editorial side of journal publishing. This again builds on the developmental ethos of the journal.

6.4 Providing opportunities for the wider academic community
The Journal of Perspectives in Applied Academic Practice welcomes the opportunity to work alongside colleagues in the field to develop “Special Issues” of the journal dedicated to particular themes or emerging areas of work. This offers the colleagues from the wider academic community, who have a good idea for a special issue, the opportunity to take on Guest Editor responsibilities for the special issue (with support provided from the regular Editorial Team for the journal). Coinciding with the open call for submissions for the first issue of the journal, expressions of interest were invited for potential future Special Issues. Response to this aspect of the call has been positive with a Special Issue focussing on technology-enhanced learning with contributions and overall editorial leadership from students and tutors at the Open University planned alongside a further Special Issue focussing on the topic of scholarship within the HE in FE sector.

7 Open access
Journal of Perspectives in Applied Academic Practice provides immediate open access to its content on the principle that making research freely available to the public supports a greater global exchange of knowledge. Whilst the Finch Report (2012) identified two routes to open access publishing, this paper has highlighted that the gold route may pose potential barriers for early career academics or academics working in areas where publishing papers in academic practice are not prioritised due to the completing demands of REF. JPAAP seeks to offer a third route of open access publication which is specifically aimed at supporting early career academics by proving free open access publication.

8 Joint copyright
In continuing the ethos of open access and empowerment of authors the copyright of all articles published in JPAAP is shared between the journal and the author(s). This allows the author(s) to republish their paper or article in full through their own and other online outlets, for example, their own blog or website or institutional websites or research repositories (Rice, 2013) . Where papers are re-published elsewhere, it is expected that the original source of publication will be acknowledged by citing the Journal of Perspectives in Applied Academic Practice and providing a full reference including authors, title, volume number, issue number, page numbers and direct link.

9 Future Plans
The first issue of the journal will be published online in June 2013, thereafter biannually, with additional occasional special issues. We also plan to evaluate the experiences of the authors and reviewers who have contributed to the journal.

References


Rice, P (2013) Four ways open access enhances academic freedom. London School of Economics. http://blogs.lse.ac.uk/impactofsocialsciences/2013/04/30/4-ways-open-access-enhances-academic-freedom/ [Date accessed: 07/05/13]

The Third Stakeholder: Towards a Pedagogy and Hierarchy of Corporate Learning in Management Programmes

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ABSTRACT: The paper addresses the challenge of curriculum design for learners from corporate clients engaged in programmes in Management subject disciplines. Corporate clients may require learning providers to customise the design and delivery of such programmes and closely couple this with authentic assessment which reflects the needs of the client and learners who are situated ‘out of the university’. The literature on corporate learning identifies that certain dynamics are evident with a direction of travel towards a more action-oriented (including work-based application of learning), proactive and inter-functional engagement with a requirement for a positive and measurable impact on both the individual learner and the client organisation itself. These requirements provide challenges and opportunities for learning providers in curriculum design. The aspirations of the third stakeholder, the corporate client, are pivotal in this regard and thus co-design has become an important feature of corporate client curricula.

1 Introduction

The ‘third mission’ or ‘third stream’ activities which emphasises increased commercial activities in a higher education institution (HEI) portfolio in the context of educational programmes and associated curricula, give rise to the ‘third stakeholder’ as a challenger to the dominant HEI-student dyadic. This ‘specialised higher education’ mission (after Laredo 2007) is the subject of this paper. The paper presents a typology of approaches to corporate learning based upon two elements: firstly a wide-ranging literature review on corporate learning provision; and secondly the experiences of designing and delivering learning engagements for corporate clients. The review draws on literature concerning executive, corporate and situated learning and amalgamates findings across these labels. Corporate clients comprise ‘for profit’ commercial organisations ranging from small firms to multinational enterprises as well as ‘for purpose’ organisations from the public sector. The typology considers aspects of disciplinary knowledge, developmental knowledge and critical approaches to the required body of knowledge within the programme as well as the goals of learners and their employer. Further elements include tests of suitability and resource intensity which necessarily flow from the pedagogy.

The paper addresses the following questions:
What dynamics are evident with respect to the expectations of corporate clients in commissioning learning engagements in the field of Management?
What criteria may be used to inform and direct the curricula for corporate clients?
Are the ‘graduate attributes’ of learners on corporate programmes distinctive?
What attributes are required from university faculty, administration and support services in order to design and deliver effective corporate learning?

The primary motivation for engaging in learning development within organisations is to achieve a positive contribution to the overall performance of the client (Woods and West 2010). In particular, the test for any such intervention must lie in the overall contribution to the client organisation’s strategy and that this contribution is detectable and measurable. Further important motivations may include the provision of validated credit-bearing programmes resulting in a recognised HEI award. Corporate engagements with HEIs are increasingly built around collaborative educational partnerships (Ryan 2009) and HEI providers are well-positioned to deliver programmes at different university award levels. The learning experience of learners situated ‘out of the university’ has been highlighted by
Macfarlane (2000) as a major consideration in the design and delivery of corporate learning engagements.

2 Evidence of dynamics in corporate education

Turbulent and more competitive business environments are widely perceived to create challenges for the management of today's organisations. Such pressures are often evident in 'for purpose' as well as 'for profit' organisations and indeed, HEIs, particularly management educators, have also been subject to similar dynamics and competitive environments (Thomas 2007). Management education must accommodate and reflect these changes (Jamali, 2005). In particular, new methods, approaches, priorities and interventions are proposed. Carnall (2003) lists the following priorities and imperatives for organisations in the business and management environment of the early 21st century: value creation; quality; responsiveness; agility; innovation; integration; and teaming. It is interesting to consider that this set of issues for the 'for profit' organisations, are also diffusing to 'for purpose' organisations as a consequence of imperatives of cost-reduction and public concerns for increased scrutiny and accountability. It follows that if HEI providers are to influence and participate in learning development in organisations with these priorities, HEIs must be able to call-upon a similar set of capabilities in order to deliver authentic curricula to corporate clients. Watling, Prince and Beaver (2003) have summarised trends which indicate growing awareness within organisations of the importance of employees to deliver the aims of the organisation and a commensurate need for appropriate development. These authors also identify the demands from client organisations for context-specific, tailored and flexible interventions. Allied to this may be a requirement for links to organisational competence frameworks and a desire for external accreditation.

2.1 A change in emphasis

Shifts in the emphasis of corporate education have been highlighted with respect to initiatives in: "learning needs, learning content, pedagogy, participant mixes, instruction and organisational integrating mechanisms" (Conger and Xin 2000 page 74). Narayandas et al (2004) set some of these issues out as evident trends which emphasise modern-day imperatives of corporate education. These are summarised in Table 1.

Table 1: A summary of dynamics in corporate education

<table>
<thead>
<tr>
<th>Then</th>
<th>Now</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unique events</td>
<td>Lifelong learning</td>
</tr>
<tr>
<td>Standard off-the-shelf</td>
<td>Customised to specific needs</td>
</tr>
<tr>
<td>Reactive - fill gaps for today</td>
<td>Proactive - train for tomorrow's needs</td>
</tr>
<tr>
<td>Acquiring knowledge</td>
<td>Action orientation</td>
</tr>
<tr>
<td>Listen and learn</td>
<td>Ask, interact and learn</td>
</tr>
<tr>
<td>Individual focus</td>
<td>Team focus</td>
</tr>
<tr>
<td>Functional silo approach</td>
<td>Interfunctional emphasis</td>
</tr>
<tr>
<td>Domestic focus</td>
<td>Global emphasis</td>
</tr>
<tr>
<td>Classroom</td>
<td>Blend with field delivery</td>
</tr>
<tr>
<td>*Reproduce current beliefs and practices</td>
<td>*Transcend current beliefs and practices</td>
</tr>
<tr>
<td>**Hierarchical</td>
<td>**Cascading</td>
</tr>
</tbody>
</table>


Yates (2002) has suggested a number of essential ingredients in corporate programmes: expertise (of faculty); innovation and customisation (in delivery and assessment) and clarity of approach (highlighting that the provider must be clear on a range of diverse issues such
as whether the engagement follows a competency approach or management education/knowledge approach). Other "clarity" elements relate to the extent of accreditation of prior learning and targeting the deployments of specialist disciplines, or offering particular types of qualification. Yates also stresses the importance of organisational elements in the design, delivery and ongoing quality improvements in the engagement and the need to balance the client organisation and learner needs in the delivery of successful programmes.

2.2 Impact on providers of corporate education

The role of corporate educators is also reflective of dynamics with a move from a reactive role in sustaining corporate performance (where answers are found in standard, off-the-shelf programmes) to now developing more customised programmes. The increasing sophistication of corporate organisations in their requirements for corporate programmes has been highlighted by Prince and Stewart (2000). These requirements must be of relevance to the organisation, and in particular, reflect the corporate client's needs, industry environment, anticipate training needs over time and develop programmes that, according to Narayandas et al (2004 page 51), "...proactively fill potential gaps in skills and capabilities".

2.3 A typology of corporate learning

The dynamics summarised earlier in this section are picked-up by Legge et al (2007) and allocated to modes of engagement which reflect evolving and advanced forms of learning provision. An overview of these is presented in Table 2. The central elements of the typology comprise the extent to which the engagement predominantly reflects a disciplinary approach, a staff development approach or a critical approach. This typology can be used to codify central elements of a suite of potential learning engagements which may reflect distinct forms of provision which meet differing requirement of corporate clients. Harrison et al (2007) point to the capability of universities in particular, as providers able to engage with such a plurality of paradigms, and this provides distinctiveness from alternative suppliers of corporate education. This typology is useful in determining the pedagogical approach to be proposed and agreed with a corporate client in order to ensure alignment between the intentions of the HEI provider and the expectations of the client. It further prompts recognition for the crafting of appropriate level-learning outcomes at the module or course level coupled with the style of engagement required to effectively nurture these outcomes and associated capabilities in the learner. The latter also informs the necessary capabilities of educators as instructors, facilitators and mentors to the corporate client, in order to deliver an appropriate style and level of engagement.

| Table 2: A typology of approaches to corporate learning |
|---------------------------------|---------------------------------|---------------------------------|
|                                 | Disciplinary approach | Staff Development approach | Critical approach |
| Student goals                   | ...to acquire knowledge 'about' rather than 'for' management | ...balance 'the educational and the practical' | ...'reflexivity in relation to day-to-day managerial experience'. 'subject conventional wisdom to critical scrutiny' |
| Emphasis on...                 | ...management knowledge as science. ...analytical models and techniques. | ...student participation. ...development of interpersonal skills. ...practical relevance | ...the 'students' work and non-work experiences to problematise management theories and assumptions' |
| Delivery                       | ...disciplinary 'expert' | ...academics, but | ...academics and |
by…
academics, therefore knowledge is 'functionally oriented' and 'compartmentalised'. High levels of 'lecturer control' also, external executive lecturers, initiatives involving practicing managers, joint student-executive workshops students. Lecturer may teach 'critical' content, however lower levels of 'lecturer control' over process and the development of knowledge

<table>
<thead>
<tr>
<th>Claimed suitability for…</th>
<th>…any organisation</th>
<th>…specific organisation</th>
<th>…specific organisation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Justifications</td>
<td>…maintaining academic standards …professional body preference …some students familiarity with UG experience</td>
<td>...blends academic and practice elements</td>
<td>…encourages a community of practice</td>
</tr>
<tr>
<td>Characteristics</td>
<td>Resource efficient. Reflects academics', priorities for research.</td>
<td>Students may acquire an 'unquestioning managerialist mindset'. Resource intensive. Possibly seen as of superficial packaging of a disciplinary-based course</td>
<td>Challenges unquestioning managerialist mindsets</td>
</tr>
<tr>
<td>Conclusion</td>
<td>...fails to address 'ambiguities of management practice' …unsuitable for situated learning</td>
<td>...moves towards a more situated learning experience</td>
<td>…consistent with the notion of situated learning</td>
</tr>
</tbody>
</table>

Source: A summary of Legge et al (2007)

3 Learning engagements in corporate education

There are a significant number of published papers which share some specific forms of learning engagement as evidence of best practice. Aspects of work based learning, problem-based learning and action learning offer the prospect of integration into learning systems which are tailored to the needs of corporate clients. These can involve design issues of learning sequences, with learners going back to their work environments to implement outcomes from learning and the mentoring of participants in the development of work-based projects - often with these projects attempting to conceptualise, organise and synthesise throughout the delivery of a course. Drawing on the work of Revans (1982) in action learning, Wankel and DeFillipi (2005) emphasise the importance of such real-world projects and project-based learning pedagogies. The design of the learning engagement thus integrates analytical and implementation parts. As with many HEIs operating in the field of corporate education, Aberdeen Business School has experienced the key dynamics set out earlier in this paper. The main directions of this journey are set out in Figure 1.

**Figure 1: Directions of Corporate Education Growth**
The following section briefly explains each of these directions and links each to the typology of approaches set out in Table 2.

At Aberdeen Business School our early corporate learning engagements were largely characterised by 'Credit Bearing Awards' for corporate clients. These were primarily contextualised versions of existing modules and courses designed to match existing Postgraduate Certificate and Postgraduate Diploma awards. These tended to reflect a disciplinary approach with emphasis on analytical models and techniques. However staff development elements were also brought in, particularly on team projects which had practical relevance for the client and the learner. 'Life-long learning with Credit Accumulation' involves the provision of support for individuals engaged on programmes of a more open nature. These are often linked to requirements for consideration of accreditation of prior learning and accreditation of prior experiential learning which may stem from demonstrable competence within the client organisation. These tend to reflect a disciplinary approach with discrete learning episodes accumulated over time. 'Bite-sized Just-in-time' approaches are often related to smaller-scale half-day workshop activities. These may be of an introductory nature (and thus prompting the development of the knowledge base within the client) or used for updating the existing knowledge base of the client. These tend to blend the disciplinary approach and the staff development approach.

'Corporate Academy Support' concerns clients who have in place an existing Learning and Development function (or wish to develop such a function) with multiple training and learning engagements, often across a variety of subject or specialised disciplines which support and reflect the key activities of the organisation. Here we see the expectation and need for a strong staff development approach which may (if deemed suitable by the client) be extended to a more critical approach. 'Executive Education' comprises corporate engagements with a subset of senior managers within the corporate client. These engagements are often of relevance to strategic issues and change initiatives. These are often directed towards a critical approach and often conducted with a problem-solving agenda.

'Facilitated Learning' approaches often require significant bespoke developments or interventions which may be highly differentiated from our portfolio of non-corporate programmes. These are often short-duration, co-designed programmes (not credit-bearing) which are often characterised by a strong work-based learning approach coupled with elements of reflection in practice. These tend to produce strong staff development and critical approaches. Challenging accepted 'ways of doing' and finding new ways of adding value are often uppermost in the goals for such programmes.

4 Graduate attributes of learners on corporate programmes
Among others, Gunn Bell and Kafmann (2010) have emphasised that ‘employability’ is about the development of attributes and skills that may be transferred beyond the HEI. Much of the emphasis on the ‘Graduates for the 21st Century’ Enhancement Theme and the wider employability agenda for graduates has been predominantly considered with regard to getting graduates in to work. This has often (though by no means exclusively) reflected a largely undergraduate agenda and often implicitly or explicitly transmits the impression of the graduate securing their first post-higher education employment. Given that learners on corporate programmes are already employed by the client, and may have been employed by the firm for a period of time, are the graduate attributes of learners on corporate educational programmes distinctive? How well-positioned are HEIs in identifying and developing the necessary attributes of learners situated ‘out of the university’?

With the learners as primary participants in a corporate education programme situated in the organisation, these individuals start with considerable existing attributes and in-depth knowledge of the organisation and its external environment. For commercial organisations, knowledge of industry context, business models and ‘ways of doing’ may also be evident. HEI faculty are therefore likely to be at something of a comparative disadvantage when it comes to important aspects of context in the programme. Challenges for faculty therefore include aspects of validity and authenticity. This may require significant effort (which may be required across a team of facilitators on the programme) to identify and develop familiarity with the client’s history, organisational configuration, activities, priorities and strategy.

For corporate clients and learners, opportunities for career development within the organisation are probably uppermost in the mind. To this can be added expectations of competence in current or future positions. These desired competences may vary from organisation to organisation depending on a range of factors which are ultimately linked to strategy. The HE parallels to competence can be found within the SCQF Level Descriptors (SCQF 2013). There may be generic and specialised competences within each organisation - these may be multiple (to reflect variation in disciplinary or functional capabilities) or stratified (to reflect differing levels of responsibility, authority and accountability) and so may not neatly match-up to SCQF levels. To what extent can HEIs and their clients coherently and efficiently bring these two approaches together? The competence levels of the corporate client may be ‘a given’ element, and are unlikely to be varied to suit the needs of the HEI provider.

5 Attributes required from Higher Education Institutions as providers

Fundamental to the engagement of an HEI provider with a corporate learning agenda is the capability to add value for the corporate client. Greeno (2006) has highlighted the importance of adding value through mechanisms which transform ‘training’ into a corporate asset and aligning the self-interest of learners to corporate goals. Criteria which consider and demonstrate value adding outcomes must therefore be part of a systematic evaluation of any proposed curriculum. Although emphasising a ‘training’ approach, the Harrison (2009, page 184) ‘six stage value-added training cycle’ emphasises the importance of communicating the value adding elements of such engagements. The elements of the model are: establishing the partnership; integrating planning and evaluation; identifying training and learning needs; agreeing learning principles and strategy; designing and delivering training; monitoring and evaluating outcomes. This approach incorporates the need for what Kessels and Plomp (1996) referred to as ‘internal consistency’ and ‘external consistency’. The former attests to the constructive alignment of the curricula and the latter relates to the shared view of stakeholders in the design of the constructive alignment. The Harrison model tends to concentrate on how the human resources function may support learning and development activities. However, it may be extended to act as a prompt for strategic dialogue in order to keep a number of curricular issues in focus. Indeed, as many corporate engagements are manifested via the human resource department of the client (or may involve a contribution
from that function) the model may act as a suitable bridge between the client and the HEI and may enhance the nature and conduct of the dialogue.

What attributes are required from HEI faculty, administration and support services in order to design and deliver effective corporate learning? Given the growing emphasis on collaboration within corporate learning, both experience and the literature suggests requirements for curricula which are: Co-commissioned; Co-designed; Co-produced; Co-delivered; Co-assessed; and Co-evaluated. These 'constituents of collaboration' suggest multiple interactions and knowledge exchanges with the prospect for significant learning between and within the HEI-corporate client dyadic.

Haskins (2012) sets out a number of differences between the traditional 'classroom' environment and the 'executive education' market. These corporate engagements are characterised by learners having more work and life experience, a requirement for rapid fulfilment, strong connections to their own activities and objectives rather than being focused on the instructor's objectives. Haskins highlights the shorter lapsed time on such programmes and a tendency for learners to make assessments of the merits and capabilities of the HEI provider and instructors in a relatively short time frame. The dynamics of the engagement are also considered with the instructor having to respond, often immediately, to requests for variations or additional content during delivery.

A range of distinctive staff attributes may be required for specific aspects of this process. These could be considered with respect to both the institutional arrangements of the HEI and faculty delivery capabilities. In addition, the same attributes may be required of the corporate client to specify the overall purpose and aim of the learning engagement. How readily can the client specify what they want? How readily can the HEI accommodate these requirements (and adapt to any changes over time)? This suggests that a major ingredient will be knowledge exchange within the design and delivery of the curriculum - a further dynamic which tests models of pure knowledge transfer as the dominant design of corporate learning engagement.

For enduring and effective collaborations, consideration must be given to the development of the relationship between the HEI and the corporate client. Guidance on this aspect may be found in work from British Standards Institute and could consider application of BSI 11000-1: 2010 'Framework specification for collaborative business relationships' (BSI 2013). In summary, this standard sets out steps ranging from initial readiness for collaboration; identification and selection of partners; managing the relationship; and consideration of suitable exit strategies for partners in the relationship.

There is a need to develop objective and shared 'tests' for the appropriateness and relevance of corporate programmes. In order to address wider stakeholder issues, designs may draw on strategic management approaches by considering criteria of suitability, acceptability and feasibility (SAFe Criteria). Kreber and Klampfleitner (2013) have identified both the importance of authenticity yet also propose that authenticity is a contested concept with different 'dimensions'. These dimensions consider notions of: sincerity; trueness to oneself; constructing and identity; care for subject and learner; and a 'process of becoming'. With the prospect of variation in learner and educator conceptions of authenticity, we can add the client as the third stakeholder who may (at best) have a single notion of what is authentic, but this can also vary within the client organisation itself. Consideration of Kreber and Klampfleitner dimensions of authenticity may prove to be useful in informing the development and selection of faculty staff for corporate engagements.

The notion of 'authentic assessment' is often of considerable interest to all stakeholders in the process, and for this reason, designing the assessment can provide an appropriate path for the curriculum. Practical, targeted and effective assessment may inform what needs to be
learnt and how this should be learnt. Several authors have highlighted various aspects of this including Gullikers, Bastiaens and Kirschner (2004) and their emphasis on the importance of professional practice. Relevance and authenticity can be demonstrated by the vocational nature of many business and management programmes. However, Chia (2007) has said this of itself may be insufficient to optimise the role of HEIs in corporate engagement and has encouraged 'intellectual entrepreneurship' in assessment design. Such radical approaches may not be suitable for all clients. The importance of 'Mode 2' knowledge (Gibbons et al 1994) has an emphasis on the production and application of practical knowledge which is often transdisciplinary, heterogeneous and heterarchic and these notions can also inform assessment design. Adding to the importance of relevance and practicality in assessment, the HEI provider must also bring suitable academic rigour to the process, particularly with respect to the assessment regime.

Ball and Manwaring (2010) address key aspects of the operation of work-based learning with a strong emphasis on the roles of the HEI, the workplace tutor and the student. These can usefully be extended to consider a variety of corporate engagements. In addition to instructor-level requirements, Prince and Beaver (2007) have cautioned about the ability of the HEI at institutional level to address many of the challenges of corporate delivery, and that aspirations for growth may have to be tempered, or that institutional practice may have to develop in order to fully accommodate corporate engagement.

6 Conclusions and future work

There is a growing literature on corporate education and the role played by HEIs. The literature provides evidence of dynamics in corporate expectation which reflects the increasingly sophisticated needs of corporate clients. Different levels of engagement are possible, with these levels placing different demands on HEI provider capabilities. The literature is worthy of further investigation in order to provide insight into a range of teaching, learning and assessment opportunities which can inform the creation of a learning system or pedagogy for corporate learning. There may be no single pedagogy which can sufficiently address the full variety, extent and dynamism of corporate client aspirations. However, consideration of pedagogies which reflect 'disciplinary', 'staff development' and 'critical' approaches are useful in categorising a range of possible interventions. Importantly, the design of an assessment regime 'of learning' and 'for learning' is considered to provide both the greatest opportunity and greatest challenge for educational providers and corporate clients. To this end, the imperative for 'authentic assessment' and wider consideration of authenticity in all aspects of the engagement are worthy of further investigation. The graduate attributes agenda and employability agenda should be extended to include the development and career pathways of learners who are already in employment, in order to service the long term needs of the learner (the employee) and inform the goals of employer corporate education programmes. There are indications that the outcomes demanded from corporate programmes, the graduate attributes to be demonstrated by corporate learners, and the capabilities of HEI providers in developing the curriculum for corporate clients may be strongly aligned, or may require strong alignment. Without such an alignment, the overall aim and ambition of corporate engagements may not be fully realised. Compatible positive alignment between the HEI and the client may be seen as an important facet of partner selection. Decision-making in curriculum design can be complex. Decision-making in curriculum design which involves active and engaged corporate clients as a 'third stakeholder' can add considerably to this complexity. However, several models and approaches are available to inform decision-making in order to derive fit-for-purpose engagements. These can be subject to evaluation by HEIs to determine suitability for current and future activities. In addition, wider considerations of collaborative business relationships should be considered as part of the engagement from the outset. The dynamic of co-designed and co-developed curricula gives rise to series of 'constituents of collaboration' which require significant knowledge exchange with the prospect of multiple iterations.
Engaging in 'third mission' corporate education provides opportunities for positive spillovers to the HEIs' non-corporate portfolio. For HEIs with Business and Management curricula, this knowledge transfer and knowledge diffusion into such courses should be surfaced and used to inform curricular design and redesign (throughout vocational institutions in particular), in order to demonstrate currency, validity and authenticity of provision. Corporate engagement therefore provides significant potential to enhance the learning of all of the HEI's learners across their portfolio of courses.

References


Carnall, C (200) Managing Change in Organisations. Harlow: Pearson Education


Co-curriculum Design in a Conceptual Age: Engaging Students in the Landscapes of Learning

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Keywords: Interdisciplinarity, Journey Mapping in the Landscapes of Learning (J-MapLL), Co-curriculum Design, Drawing as Disturbance, Conversation, Story.

Abstract: The current social and economic uncertainties have posed particular challenges for students and lecturers in contemporary Higher Education (HE). Academics and students in universities have responded to the challenges by recontextualising what learning and teaching encompasses in the twenty-first century. This study proffers an interdisciplinary solution through the development of a new methodology: journey-mapping in the Landscapes of Learning (J-MapLL). This empirical study analyses the multi-modal methodology through three case study groups and demonstrates its efficacy in unfolding thinking through individual journey-maps and collective 'big picture' maps in the Landscapes of Learning that are personal and professional, within a given context.

Introduction

HE in the contemporary period functions within a complex and often challenging environment. The changed educational landscape is partly as a consequence of external drivers, including operating within a competitive global market and a neo-liberal policy context and to internal drivers, such as, shifts in thinking about the nature of teaching and learning, in the twenty-first century. This landscape also reflects changes in the composition of the student body, which has changed as a consequence of new technology; the massification of HE and widening participation. Educators in HE have been responsive to the needs of the diverse learners they work with and the curriculum has subtly shifted from one that is focused on content (the what) to one with an emphasises on processes (the how, why, who and when).

Curricula, then, need to address this student diversity and, be framed to embrace both local and international students, in a manner that is equitable. A highly diverse student body requires a curriculum that is 'transformative' and one that 'develops dispositions, skills and other capabilities which enable graduates to challenge culture-bound knowledge and to produce new knowledge in a global context' (Appadurai, 2001, cited in Caruana, 2013: 11). This 'internationalised curriculum' (ibid) sits comfortably within the 5-16 yr old curriculum implemented in Scotland, the Curriculum for Excellence (CfE), especially the senior phase which has implications for HE. The Scottish Qualification Authority (SQA), states that from 2014, HEs will notice significant changes in 'the new kind of learner' emerging from school to HE; notably, greater maturity and readiness for HE (SQA, 2013). This curriculum change focusses on, 'the development of knowledge and understanding of key concepts', while the new qualifications framework aims to create a diverse curriculum 'meeting the needs of each learner' (SQA, 2013). There will be a greater emphasis on skills; defined as 'higher order (critical) thinking skills, creativity, innovation, research, investigation, extended essay writing and independent study' (ibid), in keeping with Scotland's educational heritage. Many in HE, are now considering how to connect the 'four competencies' expressed in CfE to concepts of 'graduate attributes', as there appears to be crossover.

It is within this context that the seeds of this empirical study were sown and initial ideas have now germinated in the creation of a new methodology that facilitates teacher-student co-curriculum design: Journey Mapping in the Landscapes of Learning (J-MapLL) (Kingsley and Normand, 2013). Scottish education at all levels and in all sectors, favours a 'generalist'
2. Co-curriculum Design

We talk to them and engage them because it is their ideas, ways of seeing and being, that are their higher education (Peters, 2013:10)

Developing frameworks to co-design the curriculum with students through consultation, conversation and engagement is essential in HE. in the twenty-first century (Kingsley, 2009; 2011). Getting to grips with what student engagement really means is what Peters (2013) believes to be important for universities; conversations with students shouldn’t be presented as novel, valuable or optional extras, but as fundamental. Angelo’s, (2013) Designing curriculum focuses on three learner-centred approaches: Learning Outcomes, Grading Standards and Assessment tasks. These features emphasise outcomes and, while we consider a focus on outcomes to be relevant, our J-MapLL approach accentuates the processes inherent in curricula, and how these are illuminated through reflection and by applying the lens of another discipline; in this instance between Design and Education. Dubberley and Pangaro (2009: 4) state that ‘Conversation is the means by which existing knowledge is conveyed and new knowledge is generated.’ Effective conversation can be modelled to improve dialogue between students and staff in HE, to develop trust, establish relationships and for learning to take place. The ‘conversation’ is a means to convey concepts and to confirm agreement and when this brings about changes in a participant; we may say that learning has occurred. Our J-MapLL approach utilises multi-modal literacies allowing for conversations to happen through social media, small and large group activities, video critique and the drawing of signs and symbols.

3. Using the Lens of Design Thinking

As a discipline, Design is often misunderstood. Perhaps this is because in the contemporary world it is seen as diverse and fragmented; however, it is a shape shifter. Its inherent convivial nature can belie its purpose to improve lives. The meaning of design originates in the Latin word designare, de = out; signare = a mark, a sign; to mark out, devise, choose, designate. One concise definition of design is: to make or draw plans for something. Therefore, the educational Design lens, within this project uses drawing as thinking for its central purpose, to plot, mark and plan a learning journey. ‘Drawing remains at the very centre of the creative and developmental process of design (Shenk, 2007), for two main reasons: developing drawing ability supports both conceptualisation and facilitates the communication of design ideas.

The Scottish CfE has embedded Design and Technology within the new curriculum understanding fully its cultural value, entrepreneurial connections, economic benefits and its social propensity to work innovatively with other disciplines and ‘borrowing’ from them ‘best practices, knowledge and expertise through multidisciplinary activity. The CfE aims ‘to ensure an appropriate curriculum for each learner’ that enables flexibility and establishes a ‘continuum of learning’ through interconnected curricula, leading to a richer ‘more rounded’ experience (Smart, 2013). This direction of travel and these goals are shared by contemporary Design education in HE. At the ‘Intersections07’ design conference,
Johannson stated that: 'great innovation is found at the intersections of disciplines', thus situating interdisciplinarity and design thinking at the heart of activity. Further, that 'complex times require designers to do new and different things' (Myserson, 2007), with four roles for Design emerging: strategist, storyteller, co-creator and rationalist; both story-telling and co-creation are pertinent to our methodology. Later, in 2009 the RSA published its six challenges for Design education, and these chime with the message about the need to co-design, and to communicate through visual and verbal means, revalidating its etymological roots. The activity of interdisciplinarity is not sufficient, in itself, and Blair (2013) questions if we are equipping our graduates with 'elastic minds' through interdisciplinary or multidisciplinary curricula. However, the message is clear, though experiences are variable, that the development of cross-disciplinary and multi-modal activity should continue, especially in relation to professional learning and practice, discipline 'currency' and to enable 'elastic thinking'.

The use of drawing, in J-MapLL, is to develop the process of thinking rather than drawing as artefact. While drawing was a disturbance to many, it was actually this aspect that was effective as an agent of learning. The iterative process of journey mapping necessitates the thinking, planning, creating, sharing and co-creating of learning, as a continuum. In this circumstance J-MapLL utilises the critical thinking skills that we believe are essential to navigate the complex HE educational landscape

4. Empirical Study

4.1 Context: Professional Conversations - sharing and exploring knowledge and practice

The University of Dundee's Excellence in Teaching Awards, for lecturing staff, provided the vehicle, opportunity and space for academics to share knowledge, expertise in teaching, examine new pedagogies and new curricula. It is from this premise that the authors met to discuss their collective understandings of twenty-first century learning and teaching. It was clear that we both considered pedagogy to be generalised across disciplinary boundaries and not subject specific. Consequently, using our interdisciplinary lenses we explored ideas, issues, challenges and potential solutions for the lecturer in relation to curriculum design and the student in relation to seeing the 'big picture' in their programme of study. As lecturers in Education and Design, we noticed students didn't understand HE terminology, programme or module aims, inhibiting their learning and confidence. Embracing the concept of a whole new mind, Pink (2008), we co-created a learning method designed to empower students in the early stages of study by visualising their learning goals through a form of concept mapping of specific aspects of the learning journey. This proposed a practice of drawing as a thinking tool, Robertson (2012), and of promoting the use of visual learning through metaphorical or analogous journey mapping, led to the co-creation and development of the J-MapLL methodology.

In this research project we have piloted J-MapLL workshops with three distinct student groups, to explore learning through story-telling, visualisation, drawing techniques and individual and collective journey-mapping. In this paper we will present our J-MapLL methodology through analysis of three case studies, which constitute the data for this empirical research project.

4.2 Conceptual Framework: the Landscapes of Learning

Through our discussions we realised that teaching and learning happens with different contexts and can be viewed through different lenses, and that these are intrinsically important. We began to see these as 'landscapes' within which learning can occur. Landscapes are important because they are the product of one of the most enduring sets of linkages: the relationship between the physical environment and human society (Whyte, 2002:7).
The relationship between tangible, physical space and social, emotional, cultural and cognitive spaces, we see as linked and important. This project explores how this conceptual framework of the Landscapes of Learning (LL) can be used to support and empower students in the conceptualisation of their learning, especially at the initial stages of study. This was done through a series of LL workshops that directly involved the student participants; moving from consumers of knowledge to producers of knowledge. Learning Landscapes aims to connect thoughts, experiences and practices from life events and educational activity. It stimulates participants’ aptitude to link hindsight, foresight and insight to progress on the learning journey, discerning between knowledge acquisition, the participation and production of skill and personal values associated with personal development. To facilitate this it is important to employ multi-modal literacies: writing, speaking, listening, seeing and image making and to position the learners’ interests at the centre as the agent and navigator of their learning journey.

4.3 Framing: Journey-mapping in the Landscapes of Learning

Journey-mapping is a visual method used in design to make a client journey, from beginning to an end point, tangible and understandable to multiple audiences. Hand drawn or collaged with photographs, the format of a journey-map is an adapted timeline or storyboard, variable in scale and medium, but, significantly, it will have common symbols and sign posts that are recognisable. It represents the passage of time through a sequence of events and notable actions on a journey. The work of David Sibbet (2010) is pertinent as he uses both graphic histories and landscapes as an elaborate way of telling a story over time. He also promotes the use of the graphic metaphor, which is a picture framework that compares one subject with another to maximise strategy and innovation. In 'Game Storming' Gray et al., (2010) highlight one objective of context mapping is to show external factors, trends and forces in a systematic view. They contend that 'we don't truly have a good grasp of a situation until we see it in a fuller context' (ibid: 84) - it is only then that we are equipped to respond proactively to that landscape.

The three case study groups were introduced to journey mapping in the Landscapes of Learning and our discussion of these will illustrate how we have adapted the workshops to meet the needs of the students and their assignments at our time of intervention. The method we have been focusing on through each study is the use of visualisation concepts to enable 'big picture' thinking and specific goal orientated thinking. Different types of thinking and action require different types of activity; they also use different parts of the brain. In 'A Whole New Mind', Daniel Pink (2008: 2) argued convincingly that students (actually everyone) in the twenty-first century need to incorporate both left-directed brain, logical and analytical thinking, and right-directed brain, creative and emotional thinking to be equipped for the 'Conceptual Age'. He argued that, right-directed brain stimulation encouraged synthesis, creativity and empathy (Pink, 2008) the very aptitudes and conceptual skills required of graduates for employment. Pink (2008) likened the right-directed brain thinkers to what Ray and Anderson's (2000) called 'cultural creatives'; people who 'insist on seeing the big picture' are 'good at synthesizing', have '...women's ways of knowing...' and see '...first-person stories as important ways of learning...' (Cited in Pink, 2008: 60-61). This is relevant to our study as synthesis, and making connections, are important graduate attributes, so too is the utilization of logic and empathy as a way of understanding and behaving. This was distilled by Pink, into what he called the six senses: Design, Story, Symphony, Empathy, Play and Meaning (Pink, 2008:61). The role of Symphony is important to this methodology of Landscapes of Learning as it is about asking participants to see the big picture; the landscape of their learning and develop aptitudes to connect and pull different pieces of their learning together to make meaning. This type of seeing is quite different from looking and is much more about sense-making through connectedness and context (Roam, 2009).
The significance of the following case studies are the practical applications of making meaning from the use of storytelling, shared narratives, visualisation and mapping to unfold thinking during the learning journey. The emphasis is on both individual and collective learning, the recognition that ‘learning happens everywhere’ (Kress, 2008), and mindful of the historical, social, political and economic context of education.

5. Methodology: the case study groups

This empirical research study is comprised of the following three case studies

CS1. BA Early Childhood Practice students are mature students with a small percentage having had previous HE experience. They study on a part-time on a distance learning mode that is predominately online. Significantly, they are all employed on a full-time basis as it is now a legal requirement that they gain a degree level qualification. The students are all women with a high percentage of them also being mothers, so they are balancing life, study and work. The learning environment is ‘virtual’ and academic staff recognise this and meet the challenge by creating an online community, supported by a few face-to-face workshops, for those who can travel.

CS2. The BSc Design students are primarily directly from school or have completed a year at an FE college. Students study full-time, on campus, towards a BSc; specialising in either Product or Digital Interaction Design. There is an equal gender balance of male and female students on both courses and students share modules and work together in large open plan studios. Some students work part-time to support themselves financially. Their goal is to find employment within their specialist fields of design. There is differing aptitude in visual skills within the two strands of the Design course and not all applicants have a background in art or design. Digital Interaction students may have fewer qualifications in art or design but have computing or mathematical interests. Most Product Design applicants have a traditional art and design portfolio and evidence of graphic communication.

CS3. The Masters of Service Design and the Masters of Ethnography students have completed undergraduate degrees with a first class or upper 2:1 degree or achieved sufficient professional experience to be considered for the Masters programmes. A small percentage of students have come direct from undergraduate degrees at DJCAD. The gender balance is mixed and students are local and international. As post-graduate students, they have a clear understanding of why they are returning to Masters level study.

5.2 Methodology: Learning Landscapes Framework

Story

The LL workshop framework begins with a collective immersive activity, a short archetypal story to set the context and scene. This exemplifies the multi-modal approach that combines visual, textual and aural communication. Story is used to position the participants in the learning journey and emulate the idea that they are in the process of the learning journey that is temporal. The story is a useful devise as it interrupts the student attention from her/his learning objectives and takes them on a journey of discovery - the story. The disruption creates a degree of cognitive dissonance, which can deepen learning by initiating problem solving and critical thinking. In the workshops we have used various children’s picture story books and this is at once unexpected - dissonant - yet familiar and taps into an elemental and core understanding that is situated deep within the learner. The inner child can be unleashed and early experiences of sharing and connecting can be ignited. The use of analogy is heightened as the story unfolds and the characters move through different situations. By telling, and listening to, stories we are able to tap into a collective
understanding, an archetype, and through the sharing we are able to frame experiences within a landscape.

The participant makes sense of the perspectives and layers of the storytelling through group discussion, thus creating their own story. This varied between the case study groups determined by the intended outcomes, for example, CS1 were read 'What the Ladybird heard' by Julia Donaldson and Lydia Monks to show how mapping and storytelling can help us work together collectively towards shared goals.

Individual Journey Mapping

Participants are introduced to the method of visualisation and facilitation (Sibbet, 2010) and of thinking through drawing (Robertson, 2012) by being asked to create visual maps of their current learning activity. Participants adapt a Sibbet (2010) landscape to match their current situations, developing the key and the spatial dimension to the visual context, provides sharing of experience among the group. The use of resources such as module guides, learning outcomes or assignment guidelines may be pertinent. It is also important to establish the key - the symbols, icons, pictograms - to be used is critical as they have to create effective imagery that is symbolic and metaphoric, because of this they can also have cross-cultural applicability. We did this through a wall mounted map with a simple key of five symbols that represent: the learner; challenges; goals; journey; and opportunities. Hesket (2005: 56) argued that a combination of text and 'imagery is fundamental in understanding communication'. Certainly, there is a relationship between thinking and language; however, a visual image can encapsulate complex and multiple concepts and ideas succinctly (Stokes, 2002) and this is why we have developed the J-MapLL methodology in its multi-modal form.

The students were introduced to the Learning Landscape metaphor and were asked to create visual maps of their journey through the module. Some students immediately reinterpreted the landscape, introducing spirals and steps towards the goal, other students drew the map as represented on the wall. We moved among the students commenting, sometimes questioning, encouraging and listening. Clear symbols and pictures were re-drawn on post-it notes from individual maps and placed on the wall map for all participants to see. Collectively, we celebrated examples of strong imaging, incorporated amusing anecdotes and built a rapport with the group, which helped to acknowledge shared struggles and successes. Each student produced an individual A4 map.

Mapping: context, content, process and purpose

We shared a selection of maps with the students and explained the role of maps and drawing distinction between their context, content, process and purpose. Essentially, the purpose of a map is to navigate the physical environment and our use of maps demonstrates the ease with which we understand a map even if the location is fanciful or imaginative. The map is a metaphor for a journey as it has a starting point and an end point, with innumerable possibilities for travel and discovery on route. Often the journey is circuitous and the line is rarely straight. Our interpretation of this is akin to Ingold's (2007: p116) becoming oneself by negotiating and moving through a tangled landscape 'in its ever evolving weave...it takes us back to the fundamental idea that life is lived not at points but along lines'. Locations such as Robert Louis Stevenson's 'Treasure Island' map are understood through the cultural connections associated with the literature and the map, its key, title and details. For CS1 a selection of tourist leaflets with maps to gardens, historic buildings were used in conjunction with maps in books that young children would use. The CS3 students were given a London A to Z by its creators Phylis Pearson. In order to create the London map she had to walk the streets of London to evidence them. The CS2 students were not given maps to view but
invited to ask staff on the module how they use drawing and mapping in their professional practice.

Collective Mapping

Finally, students are asked to create a group map that completes their activity and results in a community map of sorts. This map and its terrain are determined by the group though it is based on the participants' learning. For CS2 students their subject was an assessed requirement of the module, it involved separate interviews with the Dundee University Student Union and a large scale mapping of the people behind the various roles. This was conducted as part of the Big Draw Campaign and two students put forward the activity to be considered for a Big Draw Inspiration award. By contrast the CS1 and CS3 maps were created within the workshop. The maps were all large scale, with the CS2 map being the most highly finished. CS1 students created a map of their collective journey as a fairground, which was an effective metaphor for the way that they were feeling on their learning journey. The maps from CS3 were client focused and rich in visual imagery, perhaps reflective of their more advanced stage in the learning journey.

6. Findings

We met with two of the case study group participants in separate workshops - CS1 and CS2 - the following semester to develop with them the Landscapes of Learning methodology and to ask for feedback on journey-mapping. The participants were asked to recall the journey-mapping exercises they did individually and collectively in the last workshop(s) and to discuss their value. Students were asked to consider four questions and invited to write on post-it notes their responses. The CS1 group were representative of the whole group but for CS2 only a small sample attended the reflective workshop (9 from 39). The following provides a summary of the workshop findings. Students were asked: How did you find the journey mapping? What did you learn from the process? Have you referred back to the map? Have you used this approach again in another context?

6.1 Discussion of the Findings

The findings from the workshops were highly varied. This was not surprising to us, as facilitators, because the implementation of the concept was tailored to meet the needs of the three very different student groups, at both under-graduate and post-graduate levels. It was clear from the study that perceptions about 'academic' learning centred on a traditional conception that was highly literate and more about outcomes. We found that most students did not value processes in learning as highly and this affected their engagement.

6.2 Findings: participant insights

CS1 feedback on the use of Learning Landscapes initially reported a lack of use of the methodology yet through discussion it was noted that that students had used it in several distinct ways, ranging from professional work-specific contexts to a variety of situations at home; one student had effectively used journey-mapping to help her cope emotionally with and a personal tragedy. Insight: the adaptability of the methodology by the more experienced life-long learners, illustrated the aptitudes of agility, empathy and symphony. We had expected this group to embrace the visual and symbolic aspects of the journey-mapping more openly as this is how they work with pre-school, non-literate children in the nursery; however, they considered the activity of drawing to be 'childlike' and therefore not perceived as having high value and status for adults and in HE.

CS2 student engagement with the journey mapping exercise showed anxiety over the execution and content of the first assignment of visual mapping. The students were confused
over the content of the assignment and admitted their own expectations were to produce a highly finished outcome as it was HE; they had also expected their first assignment to be an academic and not a visual assignment. One student considered the presentation of drawing as ‘childlike’ yet recognised this skill as valuable in her tutor. Essentially, they were judging themselves and others on drawing and graphical ability rather than evaluating the method as a thinking tool. Insight: Students’ have many determinants that impact upon their learning and it is important to recognise that these are social and emotional as well as cognitive. There is a need to justify the use of children’s story books and clarify the purpose, in relation to the task, if drawing and visualisation as a thinking tool is to gain validity for future students. It was also noted during the workshop discussion that students had taken numerous photos on the study trip but had not used them in an assignment. We propose to amend the journey-map to include a photo collage and rebalance the focus on drawing in the Learning Landscape map. Finally, that the student's expectations and assumptions on entering HE are high therefore we need to manage this transition.

CS3 the students have not had a formal feedback session with us, however, their experience of the workshop has been very successful in ‘unfolding thinking’ of the creative process and consequently, we are invited to lead a workshop for the forthcoming ECIP international conference, as a CPD event for delegates. Insight: CS3 students produced a ‘Storify’ account of the visual practice to evidence the use of the Landscapes of Learning approach and how it gave a framework for the project work for the module and the clients brief. Post-graduate students demonstrated many of the aptitudes that Pink (2008) stated as essential in the conceptual age. We believe the combined use of mobile technologies and blurring of the personal and professional domains is a significant factor in this insight.

The findings from the CS3 developed a clear understanding of the role of the journey-mapping in alignment to both their personal progression through module activity and in professional activity in meeting clients’ needs. One conclusion is that these cohorts of students have mastered the skills and created this personal-professional balance during their under-graduate degree studies. Another observation is that this group watched the Sibbet (2010) TEDx 9 minute film, which enabled them to see the efficacy of the methodology within the professional context. A further observation is that these cohorts of students were confident in using mobile technologies to enhance their learning and this was evident in their use of Twitter and in blogging, which connected the teaching and learning experience.

6.3 Findings: concluding thoughts

- Students with a firm grounding in their field of study respond well to the J-MapLL methodology. This was evidenced by the Masters level students and we attribute this to their ability to transfer previous knowledge, understanding and skills - ways of knowing - to any new learning opportunity.
- J-MapLL should not be an assessed element of the curriculum but rather a methodology that motivates and supports students and staff in the co-design components of learning that brings sympathy to various parts of the educational context.
- J-MapLL workshop facilitation worked best when participants were shown the context and results of visualisation and its relatedness to the professional context. This is an important facet of the methodology and relates to students’ perceptions about the value of the task. For CS1 drawing evoked the childlike behaviour of the children in their care and was perceived as dissonant in the HE learning context.
- J-MapLL provides the opportunity to think individually, to share collectively, which is resonant with Kress's (2008) theory that communication is a social glue but also it elevates the importance of stories and narratives as a vehicle for cultural and social understanding (Kingsley and Normand, 2013: 12).
Conclusion

Learning is expansive and connects the individual learner's social context. The methodology incorporated in the Landscapes of Learning workshops necessitates participants moving from consumers of knowledge to producers of knowledge, skills and aptitudes and from drawing explicit meaning from their individual and collective experiences. Journey-mapping in the Landscapes of Learning (J-MapLL) aims to transform learning by helping learners to make connections between thought, experience, practice, and action in the social, cultural and emotional arena and in educational endeavour. J-MapLL encourages participants' aptitude to use previous experiences, reflection, narratives and learning to reconceptualise and progress on the learning journey, discerning between knowledge acquisition and the participation in, and production of, knowledge through personal and professional development. The application of inter-disciplinary lenses and the use of multi-modal literacies, including, writing, speaking, listening and image making, are necessary to position the learners' interests at the centre as the agent, creator and navigator of their journey.

The opportunities afforded by the use of mobile technology and social media means that this methodology can be developed to include computer generated image-making and the creation and sharing of 'virtual' conversations, narratives and stories.

Institutions will have to define and be clear about their place in a larger set of offerings. Increasingly students have to assess which learning mode and institutional approach best suits them and accept that 'designing' their own education is in and of itself an important education (Feldman, 2009).

References


Smart, G. (2013) 'Senior Phase' CfE: A Local Authority Perspective. (East Dumbartonshire) presentation at the QET Enhancement Themes event: Implementing 'Senior Phase' CfE: Consequences for Higher Education Glasgow Caledonia University May 2013


You tube: Sir Ken Robinson Changing Educational Paradigms RSA animate published 14th October 2010
'In the club': a collaborative cross-institutional approach to supporting transition from informal to formal learning

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Evidence suggests that lack of confidence is one of the key barriers to progression for 'non-traditional' students new to higher education. There is a growing body of persuasive arguments for the use of open educational resources (OER) to widen access and participation in higher education (Smith and Casserly, 2006; Lane 2008). 'The Reflection Toolkit' is a five hour unit, an OER which aims to get the user started on thinking about themselves, who they are, what they want to do in their present situation, and how they can work towards doing what it is they want. This paper explores the potential role of OER in building confidence and skills in an informal setting before individuals make the transition to formal study. We report on how this particular OER was used in a highly flexible and 'joined up' way with Open University Openings modules, within an innovative cross-institutional widening access initiative involving The Open University in Scotland and Glasgow Caledonian University's 'Caledonian Club'.

1 Introduction

In 2012 a chance encounter between senior Glasgow Caledonian University (GCU) and Open University in Scotland (OUS) staff prompted an exploration of what The OU's established 'Openings in partnership in the community' model might be able to offer GCU's Caledonian Club parents and what a cross-institutional and 'joined up' approach to curricular development and widening access might look like.

This paper reports on the development and delivery of innovative curriculum to support and inspire groups of parents and carers in two communities in Castlemilk and Drumchapel to embark on a pilot two-part programme aimed at supporting transition from informal to formal learning.

During academic year 2012-13 participants were involved in a bespoke self-reflection course over a 5-week period and following on from this they could elect to undertake an OU Openings course in a chosen field. Seven parents are currently undertaking Openings, which commenced in March 2013 and runs for 20 weeks.

We present the rationale and framework for this unique collaborative initiative, reflect on what we've learned so far, and outline the next steps.

2 Background

Glasgow Caledonian University's (GCU) motto and guiding principal is 'For the Common Weal', which means working for the common good. The Caledonian Club was established in 2008 as GCU's widening participation and community engagement initiative. The Club works in five Glasgow communities with historically low levels of onward transition to higher education, adopting a 'cluster' model that includes a feeder nursery, primary and secondary school in each area. The Club actively engages with local communities, championing wider participation and lifelong learning amongst pupils and families. It focuses its attention on the children at targeted schools to nurture their aspirations through a set of linked activities delivered by staff and GCU student mentors. There is a positive knock on effect on the parents too, but many have grown used to the idea that university is 'not for the likes of me'.

2.1 'Communities and families'

Caledonian Club projects in schools focus on developing key life skills, increasing aspirations and promoting positive post-school destinations in an innovative and engaging way. Over the past five years, the Club has developed a number of parent and family initiatives such as the Cook and Eat and Cooking Bus projects, as well as the delivery of a bespoke SCQF Level 7 20-credit module in Psychology.
As the work of the Club has progressed and relationships with participating schools has deepened, GCU's plan is to engage further with whole communities and families, thereby contributing to generational change in social inclusion, and the economic and social stability of local communities. Opportunities for pupils across the education spectrum are well established within the Club, and a limited number of individual offerings are available for parents.

Keen to develop the Club's provision of sequential and progressive 'small step' options for parents who wanted to journey from informal to formal learning at higher education level, GCU were delighted to embark on a partnership with The Open University in Scotland to explore cross-institutional collaboration in the field of widening access.

2.2 The Open University in Scotland's 'Openings in Partnership' model

The Open University has tried and tested flexible models for working in partnership with individual third sector organizations, trades unions, community learning networks and local colleges using the OU's Openings modules as a gentle introduction and stepping stone into higher education.  

The key features of this flexible and sustainable learner-centred model include:
- Standard mainstream model of delivery + enhanced support
- OU project worker and key link person at partner organization
- Continuity of contact at local level and a joined-up approach
- Collation of registration forms and special arrangements for tutor/student allocation
- Information/Openings 'taster' session in situ or at venue to suit
- Optional pre-course start study skills sessions (as above)
- Optional 'study buddy' group meetings (as above)
- End of course 'progression advice' that is multi-exit
- Time for reflection built into the management and delivery of the programme

OU experience of this model in a range of community and workplace contexts over the past decade has reinforced the importance of trusted gatekeepers, the value of peer support (regardless of whether the students are studying the same module or not), and the crucial role of local project workers in the respective organizations providing continuity of support. The breakthrough in the success of this collaborative model was an appreciation of the importance of shifting the focus of power and control away from the academy to the partner organization. This is crucial step in establishing a feeling of equity, ownership, responsibility and accountability.

The present initiative demonstrates well that what works in community contexts also works where the collaboration is cross-institutional or within a multiple partnership.

3 A multiple partnership
The present initiative is a multiple partnership that includes not only The Open University in Scotland and GCU's Caledonian Club, but also two 'feeder' schools within Caledonian Club community 'clusters': a nursery school in Drumchapel and a Primary School in Castlemilk.

A multi-mode approach to widening access
The Open University's Openings short courses are a gentle introduction to study at higher education level, and are the core elements within OUS widening participation activity in the community and within workplace learning. However, in early discussions it was clear that school partners were concerned that study at SCQF Level 7 may not be the appropriate entry point for many of their parents. And this concern gave the project team the opportunity to innovate and work in collaboration to develop and pilot a unique access programme that took a multi-mode approach to widening access to pilot a two-part learning pathway that

39 For further information about Openings modules visit www.open.ac.uk/openings
included informal and formal learning: a five week self-reflection course, together with the opportunity to embark on a 20 week Openings module with enhanced support.

**Why reflection?**

Evidence suggests that lack of confidence is one of the key barriers to access and success for ‘non-traditional’ students new to higher education. There is a growing body of persuasive arguments for the use of open educational resources (OER) to widen access and participation in higher education (Smith and Casserly, 2006; Lane 2008). Reflection is a way of working on what we know already and it generates new knowledge and understanding. Reflection is something we can do at any stage in life. It can help us to examine our goals, decision making or motivation - and for that reason it is often used in learning and work contexts, and in relation to personal development or career planning. Reflection can help us to recognize and appreciate skills, abilities and qualities that we have and often overlook. The Reflection Toolkit is an open educational resource which aims to help the process of reflection: to get the user started on thinking about themselves, who they are, what they want to do in their present situation, and how they can work towards doing what it is they want. It is for individuals and groups of learners from diverse backgrounds and for use in a range of contexts; for personal development and career planning. It is available in a range of formats for use on or offline. For all these reasons it seemed the perfect starting point for parents in this project.

**http://labspace.open.ac.uk/course/view.php?id=8005**

Figure 1 Reflection Toolkit HomePage

4 The Reflection Toolkit: what it is and who it’s for

The OER is a single unit, consisting of five sessions (lasting about one hour each). It contains a mixture of personal reflection, ideas about how we learn from reflection, and activities to support that learning. A case study approach is used throughout to highlight a wide range of personal journeys and to explore the circumstances and issues that have affected real life choices. In each of the five sections users are invited to relate their own experiences to the ones illustrated and go on to try out individual tasks for themselves.
One of the assets in this OER is My Reflection Log, a personal resource that collates in one document a record of progress through the unit and engagement with each of the activities and interactive tasks. The document can be downloaded to a memory stick or desktop, or can be printed off and used as hard copy. It can be added to at any time with further notes and observations. Having worked through the toolkit, the Reflection Log provides a useful record and also a source and basis for planned next steps. There is also opportunity to develop IT skills through activities and on-line research tasks. There are links to other free online resources and learning pathways, together with external websites relevant to the aims and objectives of this unit. The main point about this OER is that it can be used in a flexible way, individually or in a facilitated group context, online or offline.

Following discussions with the respective head teachers project team decided to reversion the OER as a five week course that drew on each of the five sessions. The final session focused on ‘what next?’ and would act as multi-exit point and as a bridge to part two of our programme: the opportunity to study an Openings module of their choice.

4.1 Reversioning the OER for use within the Caledonian Club

A ‘training the trainers’ session led by the OU project worker and co-author of the toolkit was held at GCU for Caledonian Club staff. The principal resource was the Reflection Toolkit ‘walk through’ document, whereby the five hour self-study unit was re-presented as curriculum for the five week reflection course which we called ‘Looking backward: looking forward’:

Session 1: Defining myself and how I feel about my present situation
Session 2: Learning by looking at my life over time
Session 3: Identifying my skills, abilities and qualities
Session 4: Clarifying my goals and planning for the future
Session 5: Identifying my next steps and where I can find information and support

Each weekly session mirrored the contents of the course, and had its own abbreviated worksheet (handout) that highlighted links to key activities and case study reflections (available as audios), and reflective tasks to try out and record in the Reflection Log, either online or on paper copy. Participating students would be provided with a memory stick and also a printed version of the Reflection Log.

5 How the two-part programme worked in practice

Parents at both schools were already familiar with the Club, but not with the OU. The project team were invited to ‘drop in’ to the tail end of existing events at the school: a parents evening at the nursery school and a meeting of the primary school council. Parents were introduced to GCU and OU project staff and to the project. They were invited to attend an information event on the reflection course. Only brief cross reference was made to part two of the programme. At this point the pilot followed sequentially rather than people being invited to ‘buy into’ both parts of the programme.

**Phase 1: ’Looking backward; looking forward’ (5 weeks)**

Facilitated by Caledonian Club staff and GCU student mentors

IT support

Child care (in situ)

OU project worker involved in Session 5, ‘what next?’

A learner-centred and multi-exit approach was taken throughout and at the end of the course, ‘what next?’ might mean differently for each individual. One of the functions of the Reflection Toolkit and its reversioning as a facilitated course is to act as a potential bridging step, on its own or alongside access modules for learners thinking about studying at higher education level. In the context of this project the next step for some parents was part two of the programme and opportunity to study an Openings module, with wrap round support provided by Caledonian Club staff and GCU student mentors, together with progression advice from OU staff.

**Phase 2: Openings module (20 weeks)**
This part of the programme mirrored the 'Openings in partnership in the community' model as described earlier, but in addition GCU provided additional support especially with regards IT and also campus visits:

'Taster' session + pre-course start study skills session (OU and GCU)
On course 'study buddy' sessions facilitated by GCU student mentors
Additional IT support facilitated by Caledonian Club
Visit to GCU campus including library
End of course progression session - a multi-exit approach
Reflection and evaluation of the learning experience
6 Reflections and looking forward

Students were invited to reflect on their experience of the reflection course. For the project team reflection was on a rolling basis so that we could respond in a timely fashion where necessary throughout the programme.

Overall response from students participating in part one were very positive. Understandably, IT proved a challenge for some parents and support from GCU student mentors was particularly appreciated. It was also clear that 'place matters' and that sometimes projects are hit by circumstances beyond their control. In this case the new build at the nursery school was not ready in time and parents were taxied to alternative accommodation in the secondary school. This was not a happy situation for some parents, who to their credit nevertheless persevered. The whole issue of a safe 'third space' is well known within academic literature and indeed OUS has investigated this in collaborative action research with Bridges Programmes (Glasgow) focusing on the learning experience of refugees and asylum seekers. With the benefit of hindsight several students felt that overall there was too much looking backwards and insufficient looking forwards in the early stages: the full scope of the programme only became clear once they were registered on Openings. This is less to do with the content of part one and part two of the programme and more to do with the management and presentation of the programme as a whole. The project team have agreed that the initial information and 'taster' session will include an overview of both parts of the programme, so attendees can have a better idea of overall direction and progression opportunities.

We recognize the importance of curriculum design that is based on adult learning pedagogy and which both recognises experience and provides opportunities to build on experience. Importantly there is scope for reflection

Working in partnerships where a framework is developed that allows group and peer support and opportunities for reflection in context, it is clearly possible to customize access provision to suit not only the general context but also the immediate situation and cohort of students. This collaborative widening access initiative underlines the importance of shared values and a long-term commitment mediated at a personal and local level.

The Open University in Scotland and GCU's Caledonian Club have confirmed their intention to develop this partnership further in 2013, using the same model of widening access provision with other communities in Glasgow, and possibly specific aspects of the initiative with parents in Tower Hamlets through work in GCU London.

References

Lane, A. (2008) Am I good enough? The mediated use of open educational resources to empower learners in excluded communities. Available at http://oror.open.ac.uk/17829/
[Accessed April 13, 2013]

The Learner Journey Designed Through a Participatory Process

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ABSTRACT: This paper explores the development of and enhancement of the learner journey process at the Glasgow School of Art (GSA). This paper begins with a discussion of approaches to co-creation and the application of design thinking.

The discussion reveals aspects of these approaches using the cognitive characteristics of design thinking. This study builds on learning previously generated through the co-creation of the GSA strategic plan and drew on the direct involvement of key stakeholders. The result is a holistic approach to the exploration of the existing learner journey, through multiple perspectives.

This approach facilitated the identification of the main elements of the learner journey, and highlights where it is most effective, as well as the issues and challenges that impede a positive individual experience. The paper outlines a number of enhancement projects currently underway as part of the project and concludes with suggestions for further development in other Higher Education contexts.

Approaches to co-creation

It is often the case that the terms co-design and co-creation are conflated or even deemed to be synonymous. Definitions of co-creation and co-design are mostly limited to those in design research literature.

Sanders and Stappers (2008) in their article on uses of co-creation and co-design in multiple contexts refer to these activities as;

'...any act of collective creativity, i.e. creativity that is shared by two or more people. Co-creation is a very broad term with applications ranging from the physical to the metaphysical and from the material to the spiritual, as can be seen by the output of search engines. By co-design we indicate collective creativity as it is applied across the whole span of a design process(…) Thus, co-design is a specific instance of co-creation. Co-design refers, for some people, to the collective creativity of collaborating designers. We use co-design in a broader sense to refer to the creativity of designers and people not trained in design working together in the design development process.' (Sanders and Stappers, 2008, p 6)

In the examples we wish to discuss, we have focused on the use of co-creation strategies in an education setting at the 'fuzzy front end' of the problem phase of idea generation. The use of such processes is well understood in business and marketing situations as well as in co-creation approaches to participatory design. In educational settings however, the teacher or programme team are often required to produce course designs (projects, courses, learning outcomes etc) in less than participatory circumstances. How might co-creation be applied to the design of our own education contexts? Certainly this can be considered in the idea generation phase.

'Co-creation practiced at the early front end of the design development process can have an impact with positive, long-range consequences (…) The application of participatory design practices (both at the moment of idea generation and continuing throughout the design process at all key moments of decision) to very large scale problems will change design and may change the world.' (Sanders and Stappers, 2008, p 9)
In these situations, we have used co-creation strategies as models of facilitation and expression as well as a peer-to-peer approach which is less hierarchical and enables participatory design. The tools used will be discussed in the section on participatory process.

'In generating insights, the researcher supports the 'expert of his/her experience' by providing tools for ideation and expression. The designer and the researcher collaborate on the tools for ideation because design skills are very important in the development of the tools. The designer and researcher may, in fact, be the same person.' (Sanders and Stappers, 2008, p 12)

Design Thinking

In co-creation strategies we can identify the cognitive characteristics of design thinking, a process which uses both visual and conceptual knowledge as well as the dialectic process of design thinking. Schön's process of 'reflection in action' (1987) describes dialectical phenomenon in cognitive design processes.

'The primacy of this unique cognitive characteristic demands cognitive models of design thinking which reflect both the duality of the visual and the conceptual and their dialectical interaction in design thinking.' (Oxman, 1999)

It is therefore entirely appropriate to consider both co-creation strategies and how to develop design thinking in those strategies in order to fully develop the idea generation phase of curriculum design or system design in an educational setting (Oxman, 2003). This description of these and other approaches used in the Learner Journey Project at GSA follow later.

The Art School context

Glasgow School of Art is the only small specialist institution for art, design and architecture in Scotland. Founded in 1845, it was the first Government School of Design outside of London, with a remit to support industry to use design to enhance manufacturing output. While the nature of industry has changed significantly in that time, GSA continues to deliver on its founding remit and nurtures graduates, and provides research and knowledge exchange that enhances the products and services provided by the private, public and academic sectors.

In 2011, GSA moved away from its established, top-down approach to a more participative and consensual model of strategic planning. The process involved input from academic and support staff and students from across the three schools of Architecture, Design and Fine Art, as well as external stakeholders, friends and funders over a 12-month period, and provided the opportunity for participants to contribute to the process and help shape the development of the School's strategy and objectives. The shift to a co-creative approach was encouraged by the successes of the relatively new design innovation approach being pioneered within the School of Design, which helps organisations develop innovative solutions to issues and challenges. Using this approach, the Senior Planning Group were assisted in development of the new strategy and three-year milestone plan thorough contributions from over 500 participants by way of a series of positioning papers, interactive workshops, a staff reference group, Governors’ workshops, and the annual All Staff Event. The new GSA Strategy was launched in August 2012, with the co-created ambition for 2025 to be: 'one of a small network of internationally recognised art schools celebrated for the contribution we make to culture, society and the economy.'

With the purpose:
'To contribute to a better world through creative education and research.'

The benefits of an inclusive and participative approach to strategic planning, were extended and a design thinking approach was deployed to explore enhancements in the learner journey. The Scottish Government's paper 'Putting Learners at the Centre' calls for universities, among other things, to commit to widening access to higher education for those from deprived backgrounds in support of its ambition to improve the opportunities for employment of post-16 year olds. This requirement was complemented by the Scottish Funding Council's stated outcomes including appropriate and responsive provision for learners and the employment market, enhancing admissions from the widest range of backgrounds, increased retention, and increasing diversity of staff and students.

Against this backdrop, this participative project sought to explore the issues, challenges and opportunities evidenced by the current learner journey, and to develop a series of enhancement projects to support GSA in achieving the Performance Indicators that will define the attainment of the agreed outcomes.

**Participatory process**

The Learner Journey project sought to encourage the engagement and participation of students, staff and external stakeholders to explore the issues and challenges associated with the current learner journey. A key driver was to identify insights that would inform improvements and new approaches or services with a view to enhancing the experience of students and assisting staff in effective delivery.

A design thinking approach was employed comprising three main elements:

- Engaging stakeholders to co-create solutions, ensuring a degree of ownership over insights and nurturing future support for implementing recommendations
- Applying a structured process of creative exploration supported by divergent and convergent thinking
- Testing and refining suggestions to ensure the most effective solution.

Putting staff and students at the centre of a staged, co-creation process that included exploring the issues, identifying opportunities, prototyping and testing options, through to the delivery of new services that are user-informed and will effectively meet the needs of those impacted by it.

The initiative was delivered through phases illustrated in the diagram below (Fig 1):

- Phase 1: Planning
- Phase 2: Idea Generation
- Phase 3: Analysis and Synthesis
- Phase 4: Idea Development and Prioritisation
Phase 1: Planning

A steering group was appointed comprising the Deputy Director and Director of Academic Development, the Head of Widening Participation, the Head of Professional and Continuing Education, the Head of Marketing and Programme Director of Institute of Design Innovation (InDI) to develop the content and approach for the intervention. The steering group agreed that:

- An academic champion from the Senior Management Team was vital, and it was agreed that this should be the Deputy Director and Director of Academic Development.
- A Design Innovation approach that was transparent, inclusive and participative was the 'right' way forward and that the contribution of staff and students would be vital in identifying and developing valuable themes to take forward.
- There should be a progression of activity from exploration of some of the existing learner journey components, through to the identification and definition of themes that could enhance the learner journey.
- The outcomes would help inform the Widening Participation Strategy.
- An 'All Staff' event or exhibition would allow the wider engagement of key stakeholders including identifying project owners to take actions forward.

The overall aim of the engagement was to explore opportunities for the enhancement of the GSA learner journey. It was agreed that this goal could be achieved using a co-creative approach with broad stakeholder input, with a view to delivering the following objectives:

- Generate a series of draft propositions for new or enhanced services.
- Generate actions and milestone plans to address these propositions.
Stakeholder Engagement
Representation from across the three schools: Architecture, Design and Fine Art, as well as input from students and external stakeholder organisations was sought.

Student Participation: Working with the Students' Association President, students were invited to participate in the initiative on two levels:

Vox Pops: Students were invited to contribute their thoughts on the GSA learner journey via a series of vox pops. These were filmed over two days at the Students Union, with 15 students making contributions that were then edited to highlight the key issues arising. The resulting 15-minute dvd was shown to workshop participants to provide first-hand insights into students' experiences and to stimulate discussion that would then inform some of the actions that would enhance the learner journey.

Workshop Participation: Students were invited to attend the workshops and, working in groups including staff members and external participants, to explore learner journey issues and define opportunities that would enhance an individual's experience.

All students who participated were offered vouchers for use in the Students Union as encouragement to attend. Staff were invited to participate in the workshops via an email invitation from the Project Champion. Participation was voluntary for all workshops, and attendance exceeded expectations by around 30%. External stakeholders from further education institutions with connections to GSA were also invited to participate in the process. A total of 51 participants took part in Phase 1: Idea Generation and 20 in Phase 2: Idea Development:

Idea Generation: Total 51: 32 staff 9 students
Idea Development: Total 20: 7 staff 16 students

Phase 2: Idea Generation

The initial workshop phase was entitled 'Idea Generation: Insights and Opportunities', and included two events. Preparatory documentation, including reference to the Scottish Funding Council and the Scottish Government's ambitions for the learner journey, was circulated in advance. Participation involved a series of activities with defined outputs that would allow an exploration of learner journey issues and opportunities. The proposals that formed the final outputs were recorded in a pre-designed template to allow them to be progressed through the design innovation process in the subsequent development phase. The key activities in the Idea Generation workshops included:

Context setting - the Project Champion introduced the project and presented an overview of the aims and objectives of this participation and its fit with GSA strategic objectives and required Government and funding body performance outcomes

Personal Experiences of the Current Learner Journey - participants were shown a 15-minute DVD comprising excerpts of personal accounts of the experience of 15 current students from across the three schools. This included their views on the positive and negative aspects of their learner journey as well as suggestions for improvement. Students included both home and overseas; from-school, direct entry and mature students; undergraduates and post-graduates; and those coming through widening participation programmes

Unpacking the Issues - the issues raised in the DVD were discussed in the open forum and comments and suggestions were recorded on post-it notes and placed in general view. At the end of this activity, the post-it notes were then clustered into 12 thematic areas, identified and agreed with participants:

Admissions Cross-School Project

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GSA Widening Participation - brief case histories of GSA’s current approaches to widening participation were presented by staff involved in this initiative, and highlighted key successes as well as foreseen barriers to future activity.

Idea Exploration - participants were asked to choose a thematic area (arising from the ‘unpacking’ session) they wished to explore further and to arrange themselves into groups. The ensuing idea exploration was facilitated by use of a pre-designed template that asked participants to visual and write comments regarding the problems, opportunities, insights, needs and themes related to the thematic area. Each group presented a summary of their exploration to the whole group. Groups were then asked to select two elements to take forward and develop further: one element that was ‘easy’ to achieve and one that was more ‘difficult’.

Brainstorming Solutions - groups brainstormed possible solutions to the two elements selected and noted the discussion on post-it notes. Groups then voted on two of the solutions to develop further as propositions.

Proposition Template - using the two prioritised solutions, groups completed a pre-designed proposition template for each, highlighting the following details: the title or description of the idea; an explanation of the problem being addressed and the users who would be affected, the objectives to be met and the resulting benefits to those undertaking the learner journey. The timescales for delivery as well as resources needed and possible implementation partners were also suggested. A total of 19 proposition templates were completed and presented back to the whole group for further comment:

On completion of the workshop activities, the Project Champion thanked the participants for their contributions and confirmed that the outputs would be used in a subsequent workshop to progress the project propositions from ideas to action plans.

Phase 3: Analysis and Synthesis

Following Phase 1 participation, a period of analysis and synthesis was undertaken. On reflection, it was evident that, in some cases, there was overlap and/or that synergies existed between some of the 19 propositions. In advance of the Phase 2: Idea Development workshops, and to maximise the time spend on identifying actions and to avoid duplication, the propositions were synthesised into 10 Thematic Clusters and sorted according to one of five key stages of the learner journey: pre-GSA while at school or college; Application to GSA and the process of admissions; Study at GSA; Graduation/Jobsearching; and Alumni.
The Thematic Clusters and associated propositions aligned to the learner journey stages are shown in the table below.

<table>
<thead>
<tr>
<th>Stage in the Learner Journey</th>
<th>Thematic Cluster (Grouped Propositions)</th>
<th>Proposition Numbers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-GSA</td>
<td>Learner Action Plan</td>
<td>3</td>
</tr>
<tr>
<td>Application &amp; Admission to GSA</td>
<td>E-folio and Admissions Applications</td>
<td>1, 14</td>
</tr>
<tr>
<td>GSA Student</td>
<td>Technical Skills</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Credit for Work</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Flexible Time-table</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Part-time Study</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>International Hardship Fund</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>Mythology of Writing</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td>Assessment</td>
<td>17</td>
</tr>
<tr>
<td></td>
<td>Studio Cultures</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td>Cross-school Students Create Content</td>
<td>10</td>
</tr>
<tr>
<td>Post-Graduation</td>
<td>Job Shop</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Career Opportunities</td>
<td>18</td>
</tr>
<tr>
<td>Alumni</td>
<td>Alumnus Management</td>
<td>19</td>
</tr>
<tr>
<td>Cross-cutting Theme</td>
<td>Internal Communications</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>Decision Making Process</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>Vocabulary</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>Overseas Communication</td>
<td>9</td>
</tr>
</tbody>
</table>

While some thematic clusters related to curricular proposals (for example, Mythology of Writing and Technical Skills and Industrial Placement), Flexible Time-table and Part-time Study would appear to be most relevant to post-graduate study. Communication was identified as a cross-cutting theme with relevance at all stages of the learner journey (Fig 2).

**Phase 4: Idea Development and Prioritisation**

The Thematic Clusters were presented to the workshop participants at the Idea Development and Prioritisation workshop. During this phase, project ideas were progressed to action plans with specific requirements for implementation identified. Participants worked in small groups of three to five people, and developed the action plans through a number of workshop activities, employing divergent and convergent thinking techniques.
Introduction - participants were given an overview of the process so far and the Thematic Clusters, and their associated propositions, were introduced. Participants were then asked to select a Thematic Cluster they wanted to work with and to organise themselves into working groups.

Storyboard Solutions - groups explored the thematic clusters, brainstormed solutions to the issues raised and created storyboards to visualise the ideal experience of the learner and/or learner provider. The storyboards included a number of outputs or touchpoints that the groups considered necessary to achieve a valued experience.

Milestone Template - to encapsulate the aspirations visualised in the storyboard in a form that could support them being achieved, groups completed a pre-designed milestone template that included information vital for implementation. This included:
- Key touchpoints/outputs required to achieve the objectives of the 'ideal experience'
- 3, 6, 9 and 12 month actions related to each touchpoint/output
- 6 and 12 month measures of success
- Barriers to implementation
- Project owner, who would be responsible for implementation

Output Prioritisation - each group nominated a spokesperson who presented back the key points arising from the creation of the storyboard and completion of the template. Groups were asked to place each touchpoint/output on a matrix indicating high to low impact on the y-axis and resource light to resource intensive on the x-axis. Once all touchpoints/outputs were placed, participants used three coloured dots to vote on the touchpoints/outputs they considered should be prioritised and actioned by GSA.

Discussion: Peer-to-Peer Facilitation and Co-creation

The workshops involved staff from across the three schools of Architecture, Design and Fine Art and feedback was supportive of a participative and shared approach to exploring issues.
and developing solutions with colleagues. Staff valued the opportunity to hear opinions and experiences from peers within and out with their own departments.

'Good to discuss issues and hear methods and strategies from across school.'
'Mixing with people across all depts. Hearing about their GSA experience and ideas.'

When asked what they had learned through their participation, two consistent themes emerged around shared issues and solutions to issues. Attendees commented on the shared issues that emerged from the discussions, and that are common to colleagues across GSA regardless of the department they are with or the level they are working at.

One of the positive aspects of the participation that attendees noted was that it was possible to explore solutions to issues and that solutions could be found.

'There are solutions for most problems'
'That we can think about changing anything'

It was suggested that more should be done to understand how GSA operates and that lessons could be learned from other Higher Education Institutions. It was also noted that improved communication within and across GSA could help address a number of problems.

Benefits of the Co-creative Approach
The process was thought to be interesting and an 'open and approachable way to express opinion and changes', and that it enabled 'open, informed discussion'. Participants enjoyed the range of activities used during the interactive sessions, and were supportive of using different ways of putting ideas across, and were encouraged by the resulting number and variety of ideas emerging from the process. The participative sessions provided a rare opportunity for staff and students to discuss topics together was valued by both groups. Staff were also enthused by the valued the quality of input from students, suggesting that they should be involved in future activities. The changes being considered by GSA, and the fact that staff and students could be part of the process was welcomed. Several participants appreciated the opportunity to contribute to the future of GSA and were enthused by the volume and range of ideas proposed during the workshops. Participants learned that there is a diversity of points of view from across the school and acknowledged that approaches can differ between departments and disciplines. For some participants, their involvement provided an insight into the complexities of planning for a higher education institution like GSA and the administrative requirements that are needed for it to function.

Student Involvement
Staff considered student input to be 'invaluable', and the DVD containing filmed student testimonials were positively received in the Idea Generation phase. Indeed, some staff asked for access to the DVD to inform changes within their departments. As noted previously, both staff and students valued the opportunity to discuss issues related to the future of GSA and the interaction was considered constructive.

'That GSA is interested in students. That our opinion is valued'

Participation in the workshops and the DVD highlighted that students are concerned about their learning experience; and their involvement signaled that GSA does value their opinions and ideas on enhancing their experience.

Issues and Challenges that Impede Positive Individual Experience
It was evident that participants were keen to see the ideas suggested developed into actions and wanted to ensure that practical steps were defined to implement change. However, it was suggested that resource limitations should be acknowledged as these are often barriers
to change. Commitment to change from the institution is vital to ensure participants that contributions are not tokenistic, whilst balancing constraints that will hinder implementation is necessary. As a small, specialist institution, the availability of staff (many of whom are part-time) to attend such events will always be a constraint. At the same time, it was suggested that it was vital that a diversity of staff were present at such events and that provision should be made by way of support to allow some, for example, studio staff, to attend. It was suggested that slightly larger groups would enrich the discussion and allow for a greater diversity of input. Knowing that one's contribution will result in change is vital to ensure participants' input is valued and to nurture a culture of positive participation. Maintaining communication with participants to keep them abreast of progress and plans for activity is necessary.

**Institutional Infrastructure**
A critical consideration in the learner journey is the non-curricular support provided by the institution. This can take a variety of forms and encompasses activities such as Widening Participation activities, student support services and careers advice. It was evident that while GSA already provides valued services, that improvements would be welcomed and, that the communication of such services could be enhanced.

**Conclusion**
This paper introduces the co-creation approach and it has been interesting to reflect on this process, we believe this approach could be used again in another context or with different themes if the opportunity arose. Our reflection has led to thinking that this process could be used with student groups seeking to build on projects beyond the initial ideation phases or with colleagues when addressing collaborative writing tasks, for example, as cited at GSA, strategic planning. Bearing these future directions in mind, what can we learn which could be transferable to a new situation?

Making sure that plenary or feedback sessions are not all the same in process and format reduces the risk of these being perceived as 'set pieces'. This enables reporting to become a peer-to-peer and group imperative; much more can be gained through smaller focused convergent/divergent sessions and through informal social exchange. We have learnt that this process is paramount and can be used for collaborative curriculum or system design in other settings (Drew, 2011). We are aware that it is absolutely vital to invite the right people to attend, participate and contribute to learning, thinking and co-creation, in this example the result is a holistic approach to the exploration of the existing learner journey, through multiple perspectives.

**References**
Oxman, R (1999) Educating the designerly thinker Design Studies 20: 2, 105 -122
Empowering Staff

Talking about teaching: Empowering staff through peer partnerships

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ABSTRACT: Peer observation of teaching practice is becoming increasingly common in higher education. The approach has been linked to enhanced teaching confidence and skill development, as well as improved collegial relationships. As such it represents an efficient and effective form of professional development, empowering teachers and building supportive networks. This paper describes a model of peer observation, titled peer partnerships, implemented in an Australian university. The peer partnerships model is based on seven core principles: building relationships, fostering learning, encouraging reciprocity, valuing voluntary participation, ensuring confidentiality, respecting ownership and enhancing quality. Quantitative results, presented in the paper, suggest the program has a range of benefits, including a positive impact on pedagogy, the development of skills and enhancement of collegial relationships. Interviews with participants have been used to collect further data to refine the model. The major themes emerging from these interviews are discussed in the paper and recommendations for future development outlined.

1 Background

Peer observation programs have long been identified as an effective method to support the developmental process of improving the quality of teaching in higher education settings (Centra, 1975; Hendry & Oliver, 2012). Tertiary institutions now face the continuing challenge of providing sustainable and effective peer review in times of rising accountability and increasing financial austerity. The Peer Partnerships model described in this paper has been designed as a response to these challenges, with embedded leadership and a focus on the principles of adult learning as two key features that enhance peer observation as a form of continued professional development.

Peer observation is a process by which academics are paired to undertake observations of teaching, allowing partners to talk about teaching, share their reflections and collaboratively discuss ideas for improvement. This leads to a collegial sharing of insights and techniques that provide both parties with a unique and rich opportunity to enhance the quality of their teaching (Bell, 2001). The strong focus on the reciprocal sharing of ideas distinguishes peer observation from other programs designed to improve higher education teaching, such as student evaluations, self-evaluations, and external review. Peer observations can be used for both summative (academic decisions, quality assurance and managerial decisions) and formative purposes (reflective practice) (Hatzipanagos & Lygo-Baker, 2006). The latter purpose is the focus of the current investigation. Given this emphasis on the formative, collegial nature of the observations, the term peer partnership is used.

Previous research overwhelmingly supports the value of peer partnerships (Bell & Mladenovic, 2008; Hendry & Oliver, 2012; Maeda, Sechtem, & Scudder, 2009; McMahon, Barrett, & O’Neill, 2007). Peer partnership programs have been described as an authentic, practical, useful, and meaningful way to modify and improve teaching (Maeda, et al, 2009). Additionally, higher education teaching staff typically evaluate peer partnerships positively (Bernstein, Jonson, & Smith, 2000; Chester, 2012; Maeda, et al, 2009; Pattison, Sherwood, Lumsden, Gale, & Markides, 2012). For these reasons, peer partnerships have been heralded as a way for Universities to meet the increasing need to demonstrate accountability.
and assure quality (Brew, 2001; Crisp et al., 2009). Perceived advantages include the
development of new ideas and skills, improvement to teaching practices, its practical nature,
its support for continued self-improvement, and ability to stimulate discussion (Bell, 2002).
The benefits of peer partnerships are strengthened by its reciprocal nature, in which peers
not only learn through feedback, but also experience vicarious learning through the
observation of peers’ teaching practices and strategies (Cosh, 1998; Hendry & Oliver, 2012).
The perceived disadvantages of peer review, including time investment and vulnerability
associated with giving and receiving feedback, are not generally strongly endorsed (Chester,
2012; Morehead & Shedd, 1997).

Recent investigations have shown the usefulness of peer partnership programs in Australia,
the United Kingdom, and the United States (Bernstein, et al., 2000; Chester, 2012;
MacAlpine, 2001; Pattison, et al., 2012). However, the varied nature and processes of
existing peer partnerships within and between institutions presents challenges for the
interpretation and comparison of results (Maeda, et al., 2009). Different methodologies
include cross-disciplinary peer partners (Hammersley-Fletcher & Ormond, 2004),
comparisons of peer feedback with student ratings and grades (Galbraith & Merrill, 2012;
MacAlpine, 2001), triads of peers rather than the traditional format of pairs (Hammersley-
Fletcher & Ormond, 2004), and observations across classrooms and video samples,
syllabus reviews and teaching portfolios (Maeda, et al., 2009).

The literature briefly reviewed here points to the clear benefits of peer partnerships for
professional teaching development in higher education settings. Regardless of its purpose or
design, successful peer feedback programs feature a structured and supportive framework
and are informed by principles of adult learning (Fleming, Shire, Jones, Pill, & McNamee,

**Peer Partnerships and principles of adult learning**

The Peer Partnerships program described in this paper is a sustainable, school-based
professional development involving peer observation of teaching. The Peer Partnerships
model encourages teaching staff to voluntarily take a critically reflective approach to their
teaching practice for developmental purposes. Through a process of confidential peer
exchange, staff can learn about teaching and/or work toward enhancing the quality of their
teaching practice.

The Peer Partnerships program was developed around seven core characteristics for
professional development and sustained education change proposed by Speck (1996) and
further articulated by Chester (2012). The core principles of building relationships, fostering
learning, encouraging reciprocity, valuing voluntary participation, ensuring confidentiality,
respecting ownership and enhancing quality informed the Peer Partnership model.

**Building relationships** is core to the Peer Partnerships program and has been evidenced
as an outcome of several peer feedback programs (Barnard et al., 2011; Chester, 2012;
Donnelly, 2007). In particular, Peer Partnerships is designed to operate within schools,
where the development of a community of practice can lead to a range of productive
outcomes including enhancement of professional identity, sharing of teaching resources and
even research collaborations. Maximum benefit arises from reflection on teaching practice
when that practice takes place within a community where there is mutual valuing of personal
and intellectual growth and when time is dedicated to the task (Rodgers, 2002).

Peer Partnerships **foster learning** with a focus on process rather than content. The program
does this by encouraging participants to partner across teaching programs, pairing staff with
others inside the school, but outside their discipline area. In this way partners are
encouraged to focus on the processes they observe rather than responding to accuracy of
content Participation in Peer Partnerships can be used as evidence of reflective practice for promotion applications and teaching awards.

In contrast to some other models of peer feedback that use expert reviewers, Peer Partnerships encourages reciprocity, with peers taking the role of both observer and observee in each partnership. This reciprocity is designed to build genuinely collegial relationships and works to diffuse the power imbalance often present in external reviews or mentorship programs (Barnard et al, 2011; Cohen & McKeachie, 1980). In addition, as Hendry and Oliver (2012) have observed, observation has the potential to increase self-efficacy, with participants gaining as much from observing as being observed.

The importance of the voluntary nature of the programs is underscored by research that suggests mandatory approaches are often associated with superficial engagement (McMahon, et al, 2007). A voluntary approach allows staff to choose their own timing for participation. In contrast to deficit peer feedback models that focus on under-performing staff, Peer Partnerships is designed as an opt-in approach that engages staff when they feel ready to participate, using the goals they set for their own professional development. This aspect of the program is designed to encourage commitment and reduce defensiveness.

The confidential nature of the observations and the use of reciprocal feedback maximises the opportunity for staff to engage in reflective practice (Chester, 2012). Important to the program is an acknowledgement of the inherent vulnerability of observation. The mandatory training deliberately focuses on the development of trust, explores how to manage the feedback process effectively with opportunities to practice giving feedback, and emphasises the confidential nature of all information generated by the partnership.

Peer Partnerships is founded on the notion of ownership of the process at several levels: peers are responsible for setting their own goals, Schools deliver training and ongoing support of peers, and the University provides senior management sponsorship and integration of the model into policy and procedures.

The focus on enhancing quality of teaching addresses the universal emphasis on teaching standards and complements existing professional development practices offered by the institution. This is consistent with Hamilton’s (2003) ethical guidelines for peer feedback that maintain peer observation should contribute towards a culture of high professional ideals and high standards of professional conduct Peer Partnerships is designed to be embedded in the workplanning process

The Peer Partnership model

The principles outlined above informed the development of the Peer Partnership model. The need for a clear and comprehensive structure of the program is consistent with mounting calls for standardised implementation processes, clarification of expectations and protocols prior to observation sessions, and clear strategy and consensus surrounding peer feedback issues (Cosh, 1998; Fleming, et al, 2004; Hamilton, 2003).

Similar to most peer feedback programs, the current model includes the stages of preparation, observation, feedback, and reflection (Bell, 2005). Additionally, the model includes mandatory training and debriefing sessions for all staff. This embedded training and evaluative support is designed to facilitate a shared understanding of the principles underpinning the program, and may assist peers in overcoming the challenges of peer observation, including concerns about delivering and receiving praise and criticism (Donnelly, 2007; Hammersley-Fletcher & Orsmond, 2005).

Research aims
The current study was designed to evaluate the implementation of Peer Partnerships at one large Australian dual sector (higher education and vocational training) university. The study examined the impact of Peer Partnerships on both school leaders and peer participants. This paper focuses on the experience of peer partners.

2 Method

21 Participants

Participants in the current study were 36 participants. The 36 participants (14 females and 22 males) were academic staff and teachers from both the higher education (N=25) and vocational training (N=11) sectors of the university. Participants included both permanent and casual staff. Years of teaching experience among peer partners varied from 6 months to 30 years (\(M = 9.1, \ SD = 7.6\)). More than half the participants (58%) reported having a formal teaching qualification and one-third (31%) had previous experience in a peer partnership program. The six schools represented included Architecture, Business IT, Education, Aerospace Engineering, Fashion, and Science.

22 Measures

Peer partners were surveyed at the beginning and end of the implementation process. An evaluation survey measured partners’ perceptions of the program, with nine items covering the following aspects of the program: becoming more skillful as a teacher; acquiring practical experience; learning about the student perspective; building confidence in teaching; strengthening reflection on teaching; contributing to portfolio for promotion and/or awards; addressing student survey issues; and building confidence in providing feedback. In addition, individual interviews were conducted to further explore quantitative findings.

23 Procedure

The project team worked with school-based leaders throughout the Peer Partnerships cycle to recruit, train, and support peers. Peer participation was open to all teaching staff. The program consisted of several phases including: a 90-minute group training session, pre-observation meeting with partner, observation(s), post-observation meeting with partner, and group debrief session Training was facilitated in each School by members of the project team, supported by School leaders. In addition to offering an opportunity for peers to meet with partners, the content of training included discussion of the program principles and ethical parameters, videos of past peers discussing their experiences of the program, activities on finding a focus for peer partner observation sessions using templates developed for the program, and activities and practice sessions on giving and receiving sensitive feedback.

The pre-observation meeting provided peers with a one-on-one opportunity to discuss goals of participation, clarify a focus of observation, and engage with the guidelines for observing a colleague. The observation stage featured engagement through direct observation peers’ teaching, followed by a face-to-face meeting to discuss observations and provide written and oral feedback.

A one-hour debrief session was held in each School at the conclusion of the Peer Partnership cycle. This provided an opportunity for peers and leaders to share aspects of the program that had been useful, consider suggestions for improvement, and discuss plans for continued reflection and improvement to teaching practice.
3 Results and discussion

Due to the relatively small sample size, results presented here are descriptive and are complemented by qualitative data. Qualitative themes were identified from interview transcripts.

Peers were invited to rate the personal importance of eight aims related to reflective teaching practice on a five-point scale at the beginning of the program (pre-program). At the completion of the program participants rated the extent to which these aims had been achieved (post-program). Results are summarised in Table 1.

Peers indicated agreement (choosing agree or strongly agree) with all aims at the beginning of the program. Holding a teaching qualification or having previously engaged in a peer partnership program made little difference to participants' aims for this program, however, years of teaching experience was negatively correlated with most aims, in particular "addressing issues raised in the student evaluation surveys (r=−.50), "contributing to a teaching portfolio" (r=−.48), "learning about teaching by acquiring practical experience" (r=−.43) and "building confidence in my teaching practice" (r=−.39). Less experienced staff rated these aims higher than more experienced teachers.

At the completion of the program outcomes were positive, with all mean scores sitting above neutral; however, scores on nearly all items were lower than at pre-test. While this could reflect dissatisfaction with the program, qualitative data did not support this. Any mismatch between expectations and experience is more likely therefore to reflect the development of a realistic understanding of the strengths and limitations of the program over time. Notable was greater variation in scores at post-test compared to pre-test, perhaps indicating that the Peer Partnership experience produced different outcomes for individual peers. At the end of the program 86.4% of participants noted that they had gained new skills and/or knowledge and 100% of participants noted that they would recommend the program to other teaching staff.

Qualitative data was collected from participants at the end of semester debrief and from face-to-face interviews with five participants. Six themes emerged including: building relationships, structure and training, clear observation focus, recognition, and reflective practice.

Table 1
Participant Aims and Outcomes of Peer Partnerships Program Participation

<table>
<thead>
<tr>
<th>Aims and outcomes of participation</th>
<th>Pre-program n = 29</th>
<th>Post-program n = 23</th>
</tr>
</thead>
<tbody>
<tr>
<td>Become more skilful as a teacher by acquiring new teaching strategies</td>
<td>4.55 (0.69)</td>
<td>4.04 (0.98)</td>
</tr>
<tr>
<td>Learn more about how to teach by acquiring practical experience</td>
<td>4.24 (0.95)</td>
<td>3.78 (1.09)</td>
</tr>
<tr>
<td>Build more confidence in my teaching practice</td>
<td>4.31 (0.81)</td>
<td>4.26 (0.92)</td>
</tr>
<tr>
<td>Enhance my professional learning relationships with my peers</td>
<td>4.48 (0.57)</td>
<td>4.22 (1.20)</td>
</tr>
<tr>
<td>Strengthen my reflection on teaching practice</td>
<td>4.55 (0.57)</td>
<td>4.17 (1.15)</td>
</tr>
<tr>
<td>Contribution to Support</td>
<td>Mean (SD)</td>
<td></td>
</tr>
<tr>
<td>-------------------------</td>
<td>-----------</td>
<td></td>
</tr>
<tr>
<td>Contribution to Teaching Portfolio</td>
<td>4.07 (0.92)</td>
<td></td>
</tr>
<tr>
<td>Addressing Issues Raised in Student Surveys</td>
<td>3.97 (0.87)</td>
<td></td>
</tr>
<tr>
<td>Building Confidence in Providing Feedback</td>
<td>4.17 (0.66)</td>
<td></td>
</tr>
</tbody>
</table>

Note: All responses on 5-point scale (1 = strongly disagree, 5 = strongly agree)

Peers commented on the positive benefits of building relationships with colleagues through Peer Partnerships. Advantages included networking opportunities, recognising that similar issues are faced by others, and getting to know more people within their School. As one peer commented, "I built a relationship... that is a big benefit". Another noted that "it's good to network and to know that the same things happen in other departments". Notably, participants reflected that the Peer Partnerships process provided a sense of belonging to their School and also to the wider University community: "...it increases your networking... and it gives you that sense of belonging too, as if you are part of the big thing rather than 'we're [discipline] here and that's what we do'.

Peers were highly supportive of the structure and training of Peer Partnerships, and cited the clear stages as helpful in effectively navigating the process. One peer noted, "if I hadn't gone to that first workshop [training session] it may have taken longer to sink in". Another believed they would be "more vulnerable to things going wrong and people being uncomfortable" without the initial training session. Peers also noted the usefulness of resources, "...the resources that you have are fantastic. The resources give you something to... hang onto".

Connected to the benefit of the structure and training was the advantage of having a clear focus for observation. Peers strongly endorsed the value of being "in control" of the focus of observation, with such control integral to reducing feedings of vulnerability that are common to peer review programs. Peers also reported that having a focus made it easier to provide honest and constructive feedback: "you don't feel like you're picking on the person because they've asked you to observe that".

Peers strongly endorsed the notion of recognition for participation in the form of acknowledgement in workplans and through endorsements by line managers and Heads of School. One peer noted the practical nature of the need for recognition: "it needs to be supported by your manager, because if it's not supported they won't give you that time release".

Finally and importantly, peers also reported that the program provided useful opportunities for reflective practice. One peer noted self-reflection as "one of the most powerful outcomes". It also provided an opportunity for reciprocal learning, with one participant realising that issues observed in his peers' classroom could also be applied to his own teaching: "my reaction was 'hang on, I think I do the same thing' and, in fact, there's a lesson there for me too". Peers noted the importance of continuous improvement of their teaching, noting that the program helps to "keep you on your toes in the kind of way that having a student teacher [does]".

In summary peers provided overwhelmingly positive support for the Peer Partnerships program. Congruent with previous investigations of peer observation programs (Bell, 2002; Hendry & Oliver, 2012; Maeda, et al, 2009), peers identified the positive benefits of building collegial relationships, encouraging reflective practice, and providing a safe environment for peer observation to occur, as well as the value of encouraging reciprocal learning.
Several key factors contributed to the success of the current program, including the structure surrounding its implementation. The training sessions were identified as integral to creating a shared understanding of the principles guiding the Peer Partnerships program. The training also provided a preemptive opportunity to explore issues related to vulnerability and discomfort surrounding giving and receiving critical feedback. Peers indicated that resources in the form of workbooks and online documents provided a tangible and easy-to-access support structure beyond the initial training session.

The Peer Partnerships program outlined in this paper contributes to a growing body of research on reflective teaching practice in higher education. Specifically, it shows the value of peer feedback programs that provide a strong and supportive structure for staff to talk about their teaching, that are informed by principles of adult learning.

References
Bell, M (2005) Peer observation in higher education Milperra, NSW: Higher Education Research and Development Society of Australasia (HERDSA)


Marshall, S J (2006) Issues in the development of leadership for learning and teaching in higher education Macquarie University: Carrick Institute for Learning and Teaching in Higher Education


Speck, M (1996) Best practice in professional development for sustained educational change ERS Spectrum, vol Spring, pp 33-41
The Criticality of Innovative Leadership within a New University.

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Abstract
This paper provides an analysis of a leadership enhancement strategy which has been conceptualised, developed and implemented at Scotland's newest university, the University of the Highlands and Islands (UHI). It considers, in particular, the impact of this strategy on the organisational culture of the University and draws inference which will be of interest across the sector. Taking into account three key considerations - the newness of the University, the complexity of the University and the dynamic national policy context within Scotland - the University's Executive Board recognised that strong and connected leadership at different levels was critically important. A range of approaches were identified in regard to leadership enhancement and development, including the Senior Leadership Development Programme, which was conceptualised and delivered in conjunction with Ranmore Consulting. The initial cohort for the programme involved 21 participants over a period of a year engaging in a diverse range of activities, from workshop sessions focused on current developments in HE, structured reflection on the internal development of the University, 360 degree appraisal and structured visits to other parts of the higher education sector. An important part of the programme focused on innovation groups, small groups of participants developing clear ways forward on themes such as employability, student retention and the enhancement of communication and relationships. This element of the programme is of particular relevance to the current paper, as it is here that there is a clear link between organisational leadership and the delivery of the enhancement themes. The paper concludes by considering the impact to date of the leadership development programme against the background of a new and complex university, operating within a volatile policy environment. It draws out key themes around the development of trust, clarity of vision, confidence and sustainability, themes which are of clear relevance to the higher education sector more generally.

Introduction and Context
The characteristics of the University of the Highlands and Islands (UHI) are very closely aligned with the characteristics of the Highlands and Islands of Scotland, and in order to understand the criticality of innovative leadership within UHI, it is necessary to contextualise this within both an understanding of the region and also of this very new university. In this sense the Highlands and Islands is a particularly distinctive region within Scotland. Stretching from Unst in Shetland to Campbeltown in Argyll, and from the Outer Hebrides to the borders of Moray, it includes over half of Scotland's land mass, but under 500,000 people. Aside from the inner Moray Firth, much of the region has a very low population density and remoteness and rurality present significant challenges to delivering public services, including further and higher education. Yet it is precisely these services which make a major contribution to ensuring that the region sustains viable communities. The region is also distinctive insofar as its geographical and socio-cultural character are unique within Scotland. The quality of highlands and islands' land and seascapes are a significant factor in the development of tourism across the region and it is these same characteristics which align with the energy industry, and within this the renewables energy industry is an increasing feature of the region's economy. A further dynamic worthy of note is a set of sub-cultures across the region which reflect the volatile history of the region. In the west, for example, the Gaelic culture and identity is powerful, with the Gaelic language in everyday use in some communities, whilst in the northern isles a Norse influence is very much to the fore. It is within this environment, with all its richness, opportunity and challenge, that Scotland's newest University, the University of the Highlands and Islands has been created, a key purpose of which is to make a major contribution to the economic development of the
Highlands and Islands region, and in particular providing an opportunity for those who want to access higher education from their own communities to have this opportunity. The notion of a university for this region is not new. It first had serious consideration in 1833 when "a series of discussions took place in Inverness…on the benefits which an institute of higher education could bring to the town" (Hills and Lingard, 2003, p.6). Eventually in the 1990s, with strong support from Highlands and Islands Enterprise (HIE) the project to create the University of the Highlands and Islands came to life. During this period "HIE, in collaboration with Highland Council…and other local authorities, managed to persuade a number of Highlands and Islands further education colleges…to combine with a number of Highland and Islands research centres in order to create a multi-campus university without precedent in the United Kingdom." (Hunter 1999, p.374)

During the period from 1990 until the current day, the UHI has gradually taken shape. With significant initial investment from HIE and European funding, coupled with strong and sustained cross-party political support, the UHI project as it was titled, moved through a number of distinctive stages from the drawing together of the academic partners, to the creation of the Executive Office. This process was at times fraught, but by 2001 UHI Millennium Institute was deemed to be a Higher Education Institution, and in 2010 it received taught degree awarding powers, and then full university title in February 2011. UHI today consists of 13 Academic Partners throughout the region, 9 of which are further education colleges (but which are tertiary in character, with provision from FE, through undergraduate, to postgraduate and research) and 4 are specialist research/teaching institutions. Each academic partner is an autonomous institution responsible for its own affairs, whilst at the same time being locked into the University. The University’s Executive Office and the Academic Partners have the responsibility to co-ordinate and lead the overall development of higher education across the UHI and increasingly for further education too. This complex set of arrangements provides significant challenges in leadership and management, but also opportunities for students across the region to engage in higher education whilst being based in their own communities through engagement with their local academic partners. In this sense the university’s teaching (and research and administration) is underpinned by the utilisation of technology that places it somewhere between a traditional single campus university and the Open University. A particularly noteworthy characteristic is the use of an imaginative approach to blended learning, including extensive use of video conferencing in teaching, enabling students to engage in classes with their peers across multiple centres in the region. (Simco and Campbell 2011).

At this point in the University’s development, a major issue is the extent to which the university becomes a truly tertiary institution, operating across further education, and higher education, offering everything from FE access qualifications and National Certificates to undergraduate and postgraduate degrees, including research degrees. Deliberations around this issue are underpinned by a number of key drivers which can be identified as:

The political environment in Scotland and the wider UK
The national policy environment in Scotland in relation to post 16 education, and institutional governance
The consequences of both these drivers for the governance and management of UHI
In relation to the political environment in Scotland and the wider UK, there is at the time of writing a rapidly developing sense of diversification in educational policy. Following the Scottish National Party (SNP) victory in 2010, and the gaining of an overall majority in the Scottish Parliament at Holyrood, the Scottish Government has set out and is delivering a set of radical developments within the tertiary sector. At the same time in the wider UK where the Westminster Government has responsibility for education in England, a change of Government from Labour led to a Conservative-Liberal Democrat coalition in 2010, has led to a marked shift of emphasis in political direction, with less emphasis on access and inclusion in higher education, and more emphasis on the application of market principles. In Scotland this renewed sense of strength in the political composition at Holyrood has, arguably, a clear link with the Scottish Government’s plan for radical reform in post-16 education. Underpinned by a key consultation document ‘Putting Learners at the Centre:
Delivering Our Ambitions for Post 16 education' (The Scottish Government 2011), a full Bill is now being progressed through the Scottish Parliament which will present a radical change within tertiary education. Key elements include, significant reform of governance, particularly within further education, the regionalisation of further education and an ongoing programme of College mergers across Scotland, and the tightening of links between the top end of schooling, further and higher education, so to enhance progression and articulation opportunities for students.

All this has happened at a time when the UHI is forming its own character and is considering its own constitutional future. Between the award of degree awarding powers, the conferring of university title and the current time, there has been much internal debate on this key issue. This is considered in more detail below, but taken together with the reforms applying to all universities and colleges in Scotland, including the identification of 'Outcome Agreements' for both further and higher education, there is a clear direction for the UHI; one towards enhanced integration and commonality across tertiary education provision within the Highlands and Islands.

**Innovation in Higher Education**

The introductory section identified UHI as a new and highly distinctive university, operating within a fast-changing political environment within Scotland. It is by definition ground-breaking within Scottish higher education, and because it is ground-breaking it is also potentially at least highly innovative. The geographical characteristics of the Highlands and Islands in particular mean that higher education within the region is being conceptualised in a particularly distinctive and therefore innovative way. It is precisely because of this circumstance that the leaders and managers within the University will need to be innovative, as the arrangements for the University are embedded over the next few years.

The desirability of being innovative is not restricted to UHI, of course. It is increasingly important for the whole of the higher education sector, within Scotland, the UK and internationally. This is illustrated powerfully by two papers commissioned by the Leadership Foundation for Higher Education (LfHE) (Kennie, T and Price, I, 2012a and 2012b). The first of these papers identifies the notion that there has been significant change in professional service firms on a global scale, and considers the potential implications of this for higher education. Kennie and Price outline the nature of these changes in the professional service firms:

"Cultures, work, and workplaces, have all become much more flexible and interactive. Above all perhaps the traditional mainstream has shrunk considerably" (Kennie and Price 2012a p.27)

This is a statement which asserts that there is more differentiation of type, client base and strategic focus, than ever before within professional service companies, and those firms who do not recognise what Kennie and Price term as a changing ecosystem are less likely to survive in the changing world. Kennie and Price continue by asserting that:

"The success stories were sometimes new entrants who commoditised individual professions (think Specsavers) and sometimes established firms who managed to shift the old pattern" (Kennie and Price 2012a p.27)

Kennie and Price go on to cite the work of Clayton Christensen. Christensen made a clear distinction between sustaining innovation, where there is evolution and gradual change to an existing order and disruptive innovation, where there is far-reaching change by dint of dramatic intervention in the ecosystem:

"He [Christensen] concluded that whilst existing players in a market typically succeed and win at sustaining innovation it was the new entrants (rather than existing players) who typically succeeded and were the winners at disruptive innovation, punctuating the equilibrium of that particular sector." (Kennie and Price 2012b p.2)
Kennie and Price also identify the current scenario around various perturbations in the higher education system. They identify a number of factors which although not exhaustive amount to a series of potential drivers for disruptive innovation. At this stage I quote these in full because they form the basis for some further analysis which I develop.

"The changes in the way which funding for English higher education is being channelled (from direct to institution to more indirect via students).

The increased focus for institutions on attracting the 'best' students through the use of the AAB+ and recruitment process and the even greater competition that this is now likely to promote in England.

The high levels of demand in both the 'developed' and the emerging economies for higher education and the increase in the number of private 'for' and 'not for' profit providers as they seek to meet this demand.

The vast and rapidly expanding wealth of open educational resources and the explosion in access to 'free' knowledge content through, among others, the use of 'iTunes U'; which is increasingly breaking the hegemony or a 'closed shop'; for others leading to the de-professionalisation of learning.

The rapid development of 'blended' learning as a central part of the strategy of many, and increasingly most, higher education providers.

The separation of different parts of the higher education value chain i.e into the component elements of the student journey from marketing, recruitment, creation of 'content', the delivery, assessment, accreditation etc (often referred to as 'unbundling').

On the research front, the increased selectivity and concentration of funding into a few very fortunate institutions (and individuals).

Also the increasing entry of PSFs, large and niche, into areas of broadly speaking, evidence based contract research.

The globalisation of higher education and the mobility of international student flows, the instability in these cross border movements also the massive investments being made in higher education in many countries (such as China, Malaysia, India etc)." (Kennie, T and Price, I, 2012b, pp3-4)

The list presented by Kennie and Price is interesting because of the potential there is to categorise the various drivers which have been identified. Some of the drivers are specifically related to the policy of an individual government. Examples include the funding reform in English higher education and the impact of the AAB policy in England. It is also notable that since the last UK general election and the last Scottish Government election there has been a clear divergence of policy across the two jurisdictions. What might be termed politically underpinned disruptive innovation has, then, been prevalent in England through the reforms of higher education funding and access, whilst in Scotland there has also been this kind of disruptive innovation, particularly through the development of policy towards tertiary education and regionalisation of further education. This differentiation illustrates the notion that public policy is an important factor in stimulating innovation within higher education, and in the case of UHI, it is very much the case that the creation of this
innovative institution reflects the Scottish Government’s desire for greater connectedness between further and higher education on a regional basis.

Yet other disruptive innovators on the list are far more far reaching and are only indirectly related to political influence within individual nations. The development of international competitiveness in the sector, the proliferation of different kinds of higher education institutions across the world, combined with the growth of open educational resources and the ubiquity of learning technology has the potential to bring very significant structural change to higher education.

It is the combination of politically underpinned disruptive innovation drivers and enormous global change fuelled by both the proliferation of higher education and technological progress that will drive change in the sector. Arguably the imperative for innovation in individual institutions is a fundamental necessity for without this innovation, there is a risk to individual institutions’ survival. Just as there has been huge change in the airline industry, for example, through growth and diversification, so there will be significant change globally within higher education. Those institutions which are able to accommodate these changes and indeed flourish within them are more likely to survive. Those whose approach to innovation can be described as being aligned with sustaining innovation are less likely to thrive. Moreover, at the micro level, the question has to be asked as to what distinguishes an innovative university from one which struggles with innovation. One response to this question suggests that a key function relates to leadership. Where there is a deliberate and sustained focus on the importance of innovation at all levels of the university, then it is more likely that that university will have the characteristics of a demonstrably innovative culture.

How, then, does all of this relate to UHI? The critical consideration is that UHI is a new university operating within an environment where there are both politically underpinned disruptive innovators and globally determined disruptive innovators. Taken together this environment is one of seismic change in higher education, with all the associated risks and opportunities. UHI is a new university and as such is defining its own character. It has a choice as to how it responds to these disruptive innovators and to what extent it embraces innovation. As a university, UHI has recognised the importance of leadership development at all levels, and it is from the leadership development programmes and opportunities that have been provided that the criticality of innovation is being increasingly recognised. I now turn to considering the leadership development programmes within the university, and how innovative thinking has emerged from these programmes.

**Leadership Development Programmes**

Following the inauguration of UHI in 2011, there has been a significant amount of work to define the future characteristics of the university. Given the complexity of the university’s structure, operating as it does across 13 autonomous academic partners and at a time of very considerable change across Scottish tertiary education, the University’s Executive Board agreed to a proposal that there should be investment in leadership development programmes. This was primarily to build trust and confidence across the UHI partnership and to prepare the University’s leaders at all levels for the very distinctive challenge that is involved in leadership in UHI. Accordingly two substantial leadership development programmes have been devised in close dialogue with Ranmore Consulting.

The first is entitled the Strategic Leadership Development Programme (SLDP). This programme is for middle and senior managers across the UHI academic partnership and including middle and senior managers within the University's executive office. It was designed to appeal to a very wide range of staff, from academic leaders, to those who have leadership roles within professional services across the partnership. The programme is of about one year’s duration, and consists of multiple elements. Firstly participants attend
residential workshops which are designed to expose colleagues to significant developments nationally and internationally, as well as providing an opportunity to reflect on the developing 'story' as the characteristics of UHI emerge. This element is particularly interesting, as the year in which the programme took place - 2012 - it ran in parallel with the debates around the constitutional future of the university mentioned above. 2012 began with the publication of the Capita report (Capita 2012), which had been commissioned in the autumn of 2011 to look at the future operating model of the institution. At the heart of the report was a dialogue as to whether the institution should become a single entity, or whether there should be a move towards further integration, broadly within the existing partnership model. The 'building blocks' model as it became known was affirmed as the best fit future model and this was essentially an evolutionary position with a gradual movement towards enhanced integration. Following on from this and reflecting the 'Putting the Learner at the Centre' white paper (The Scottish Government 2011), and the Prondzynski review of Governance in higher education (The Scottish Government 2012), the Cabinet Secretary for Education, Michael Russell MSP, commissioned a further report into the operating model of UHI, which recommended a series of changes ranging from the routing of all funding for both higher and further education through the University Court, with the Principal and Vice-Chancellor as the accountable officer, to constituting a smaller Court, to forming the triumvirate with strong representation for both research/specialist and further education in the University's senior management (UHI 2012).

This 'story' provided a fascinating juxtaposition with innovation as the leadership programme developed. Participants recognised that the debate about the constitutional future was critically important and yet very fluid. A key factor for participants was, therefore, how they engaged with this debate, the extent to which they felt comfortable with leading in a particularly uncertain and volatile environment and the extent to which there was a recognition that this debate was as much about innovation - creating the first university in Scotland to operate within a truly tertiary environment - as the embedding of operational arrangements.

This was aligned with a second element where participants had the opportunity to visit other institutions, both within the higher education sector and within industry. These visits provided participants with a first hand opportunity to see where there is disruptive innovation - for example through seeing the work of a private sector provider of higher education in London.

A third element of the course provided participants for an opportunity for 360 degrees feedback. A key purpose of this was to enable individuals to reflect on their own performance within this very challenging and fast moving working environment. This also aligned with the work participants did to complete the Margerison-McCann Team Management profile, which enabled them to identify their preferred style. All in all a thorough opportunity was provided for participants to really reflect on their own strengths and preferences as key managers and leaders operating within the UHI environment.

Finally, and perhaps most importantly, three groups of participants were each asked to devise and take forward over an extended period an innovative project which had real impact across the organisation. One group looked at a theme of the interface between schools and UHI, drawing out of this theme considerations around communication and relationships in a networked organisation. A further exploration of this project is provided in the next section. A second group explored factors which lead to student persistence. This was a significant project because historically UHI has had some difficulty with levels of retention, and this project effectively looked at this issue through a different perspective, hence making an important contribution to the various workstreams across the University in regard to retention. A final group again focused on a key theme, pertaining to employer engagement and retention. Each group undertook an extended project and reported back to
An Comman, the twice a year meeting of UHI Principals, Board Chairs and senior staff in executive office.

Overall then, the SLDP provided an opportunity for a significant number of middle and senior managers to engage with an extended course which not only raised the profile of innovation within the sector, but also provided a particular opportunity for staff to reflect on their own dispositions and to take forward an innovative project which was of direct benefit to the institution. Building from the first cohort of SLDP, a second cohort is currently running, which again exposes another group of staff to the notion of innovation. In addition a variant of the programme for UHI Academic Partner Principals and senior executive office staff also contributes to the forming of an innovative institution that is systematically finding its place within the tertiary education environment. Altogether to date, some 60 staff have participated in these leadership development programmes and it is anticipated that this will have impact on the creation of an innovative culture across the University.

**Developing innovation - a vignette from the SLDP**

In this section, I present a micro-case study of one of the three innovative projects which were undertaken as part of the SLDP. This is the project alluded to above which seeks to explore the interface between schools and UHI. For UHI this is topic is one of considerable strategic importance, both from the perspective of raising the profile of this new University with schools across the Highlands and Islands - and hence securing enhanced student recruitment - and from the point of view of delivering higher education curriculum within schools, particularly to S5 and S6 pupils. Yet, there is currently a set of circumstances where both individual academic partners of the University and the executive office are interfacing with schools in different ways and to different extents, hence potentially creating brand confusion and compromising the overall aim of raising the profile of the University across the region's schools. The group deliberated on this conundrum and proposed practical ways forward.

In essence, the project moved through four phases, exploration, planning, action and implementation. Exploration involved the initial identification of the problem and the need for change. It asserted that curriculum development at the UHI/schools’ interface led to communication and strategic issues which needed to be addressed if this interface was to assume a more cohesive character. The planning phase sought to identify the correct diagnosis of the problem through systematic discussion with colleagues around the UHI partnership as well as through information gathering and analysis. A third phase focused on action, essentially ensuring an innovative approach to secure change in this key area of the University's work. Arising from these deliberations was a clear recommendation for a Schools' Strategy Forum with a clear remit, shared vision and shared values. The final phase is integration, the necessity of integrating the initiative within the mainstream, and it is this aspect of the project which is currently being created with strong buy-in from senior staff across the partnership.

Throughout the project, the team engaged in a process of continual reflection, which informed the ongoing nature of the deliberations around the UHI/schools interface. What is interesting here is how the relationships and ways of working appear to be as important as the actual project itself. If a university is to be innovative, it is necessary to have innovative leadership at all levels of the university. Innovative leadership is a notion which arguably needs to be explicitly created, nurtured, and subject to a process of ongoing reflection and critical appraisal.

Reflections from the group's reflective discussions illustrate this point. In the first instance, the group asserts that
"by using the Margerison-McCann Team Management profile 'circle' - the 'creator-innovators' took on an initiating role and pushed the agenda by calling meetings etc. Later on the emphasis switched to the 'concluder-producers' to pull things together and get a final presentation done."

This reflection makes, in part, a clear assertion that in order to be innovative, it is desirable to have an explicit understanding of the preferred working styles of various members of the group and how these can be utilised at different times within the project. This self-awareness and self-analysis seems to be an important consideration in putting together leadership teams where there is an optimum opportunity for innovation.

A further assertion in the group's reflective log underscores this point further:

"The process was the valuable thing more than the product - in terms of; understanding our own attributes, gaining insight into the application of leadership to the particular case study of UHI, and learning how to work collectively through complex issues in a partnership context."

What is striking here is the last phrase. Given the dynamic of the UHI partnership, and the imperative to be innovative within this context, this learning to work together through complex issues, is both very important, but also very challenging. And here there is both risk and opportunity. As I have already stated, innovation is critical to the future of UHI and it follows that innovation in leadership is also critically important. Yet innovative leadership within UHI demands, at times, exceptional political skill in dealing with complex issues in a partnership with multiple employers and at times multiple drivers for change operating in different directions. The opportunity is to create a university which has true innovation. The risk is that the internal political complexities compromise the ability of UHI to be truly innovative within the tertiary landscape in Scottish education, and the global changes in higher education. In short, history will judge how effectively UHI's leadership at all levels has been able to respond to both politically underpinned and globally defined disruptive innovators in this very important stage of the university's formation.

Conclusion

This paper has sought to explore the juxtaposition between innovation, leadership and universities, particularly new universities. How universities respond to this juxtaposition will be ultimately be related to their success in the global market place that defines contemporary higher education. It is in this context that the assertion is made that innovation is critically important for universities to engage with. By innovation I mean an openness to change and adaption, to develop practices which might at times be novel and to constantly consider how the university is positioning itself within the higher education environment. The analogy which Kennie and Price (2012a) draw between professional service firms and universities is powerful. There are many ways to illustrate the point, and one of these is through reflecting on the optical services industry. Gone are the days when individual firms of opticians operated in individual high streets in a consistent way; eye tests followed by a lengthy wait for the new glasses and a restricted choice to boot! Now the market place for optical services contains a spectrum of different kinds of firms from the traditional to the new, where instant fitting and same day collection of new glasses is the norm and the choice is endless. Within higher education, there is the proliferation of different kinds of universities across the UK and across the world; ancients, pre-92s, post 92s, private for profit, private not for profit, universities within universities offering differing models in response to student demand, niche and specialist universities, tertiary universities, research intensive and teaching only universities, and so forth. This proliferation creates endless choice for students and research investors, and if we add to the mix open access learning resources the reality is a highly competitive global environment. It is therefore in the interests of institutional well-
being, and ultimately survival that innovation is deemed to be of critical importance. The reality is one where there is no longer a defined status quo.

Yet this notion of the criticality of innovation is necessary but not sufficient. The relationship between innovation and leadership is very important and the paper has sought to explore the link between these dimensions, not just leadership at the top of a university, but distributed leadership throughout the whole of the university. For a university to be innovative, it needs to have an innovative culture, and an innovative culture needs to be defined and led. A key argument in the paper is that innovative leadership is not something that can, at the scale required for cultural change, be created by a non-interventionist approach. A systematic approach to leadership development is important, bringing with it considerations of reflection of individuals, an acknowledgement of the varying characteristics of members of teams, and an exploration of the case for innovation. It is perhaps particularly important that a culture is built where the inauguration of innovative ideas from across the university is encouraged and facilitated. It is also arguably of special significance for new universities. New universities being created and launched into this global context have the potential advantage of not having deeply entrenched traditions and protocols, but likewise they often have the disadvantage of limited reserves and limited experience, both of which are important considerations.

The conundrum facing UHI is that as a new university, and one which in many ways is constitutionally quite different from any other university in Scotland, it has to be innovative and the leadership across the university has to demonstrate innovative flair. The reason it has to be innovative is because of the global higher education environment into which it has been born. Like all universities, UHI will need to find its place within this environment if it is to flourish, ultimately survive and contribute to the long term economic, social and cultural needs of the Highlands and Islands of Scotland. Yet the forming of a new university, particularly a university as complex as UHI provides an especially demanding environment for innovation. To develop a cohesive innovative culture across a geographically dispersed university with multiple employers and strongly defined sub-cultures is not a straightforward matter. The resolution to this conundrum comes full circle to the facilitation of the highest quality of astute political leadership for collaboration at all levels of the university. This is indeed a significant challenge, but also a great future-facing opportunity for UHI.

References
Capita (2012), Outline Business Case for a New Operating Model for the University of the Highlands and Islands, Capita Business Services Limited
Hunter, J (1999), Last of the Free; a History of the Highlands and Islands of Scotland, Edinburgh, Mainstream Publishing
The Scottish Government (2012), Putting Learners at the Centre - Delivering our Ambitions for Post-16 Education, Edinburgh, The Scottish Government
UHI (2012), Working Group on the future structure and function of the University of the Highlands and Islands, Report to the Cabinet Secretary for Education and Lifelong Learning (The Foxley report), UHI, Inverness

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Influences on assessment choice and the practice of assessment in first year

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Abstract  
It is widely accepted that assessment is at the heart of teaching and learning practice and policy, and that the methods of assessment chosen have a major impact on how students learn (Boud, 1995; Brown et al, 1997). Among first year students assessment has been identified as a crucial area in assisting successful engagement and transition to third year education (Fisher et al, 2011; Goos et al., 2011). This study is concerned with investigating the factors which currently contribute to the choice of assessments by staff and students in first year modules at University College Dublin. The first phase involved a content analysis of module descriptors for 627 first year modules. The mean number of assessments across first year modules was 2.5 however 16.8% had four or more components of assessment. Of the 1501 discrete components of assessment identified 37.2% lacked specific information on the timing of assessment. Phase 2 included an anonymous online survey of staff involved in coordinating and teaching first year modules. The final phase involves a case study of assessment practice in sample modules. This paper will discuss our findings and how they might inform future development in assessment practice.

Introduction  
It is now widely accepted that assessment is at the heart of teaching and learning practice and policy, and that the methods of assessment chosen have a major impact on how students learn (Boud, 1995; Brown et al, 1997). Indeed in recent years there has begun to develop 'a scholarship of assessment' (Holroyd, 2000; Banta et al, 2002; Stefani, 1998, 2004; Rust, 2007). Much of this scholarship been devoted to approaches to assessment in the classroom, and their respective advantages, including the comparison of practices internationally (Gilles et al, 2011). We know, then, a great deal more about the ways in which students are assessed than we did a decade ago. But it has been suggested that we need to know not just how to assess and what to assess, but why (Brown, 1999; Stefani, 2004). In particular, it remains the case that there has been less research into teachers' choice of methods and the factors that influence students' decisions when selecting assessment options (Craddock & Mathias, 2009; Goos et al, 2011).

Changes to assessment involve a range of types of decision-making and require reflection and discussion among a range of stakeholders (Holroyd, 2000; Harris & James 2006; Brew et al, 2009), and researchers have approached the issue of choice of assessment from the various perspectives of theory, institutions, students and teachers. One approach is to analyse the concepts and theories underpinning assessment practices, drawn from scholarly research and institutional policy (Price et al, 2011). Some recent work has focused on improving assessment practices by highlighting the dilemmas inherent in assessment and the balancing of them (Havnes and McDowell, 2008). There has been a growing recognition of the complex challenges involved in change in assessment, affecting a variety of interests, and requiring collegial reflection and discussion (Harris and James 2006; Brew et al, 2009). Another approach is to examine perceptions of the role and practice of evaluation and assessment. Some recent studies have addressed student perceptions of evaluation and assessment in higher education (Struyven et al, 2005; Wen & Tsai, 2006). Regarding teachers' choice of methods, an important contribution has been made by an Australian
study from 2011 in which programme deans were asked such questions as: What do you see as your role in assessment? What do you consider to be the main issues or concerns around assessment in your Faculty? What strategies are currently being implemented to address this issue? If you could make any changes to improve assessment practices in your Faculty, what would you do? (Goos et al, 2011).

Such questions are especially pertinent to First Year. This study's focus on assessment in First Year reflects the key aims of UCD's education strategy (2009-2014), 'to foster early and lasting student engagement'. This corresponds to a widespread recognition of the importance of the First Year experience in assuring the quality of university teaching and learning (Kift 2008; Krause and Coates, 2008), and as a crucial area in assisting the successful transition from secondary school to university (Fisher et al, 2011; Goos et al, 2011).

**Methodology**

The current study has been conducted in University College Dublin (UCD), the largest university in Ireland with approximately 25,000 students. In 2012/2013 4,383 first year students began their studies in UCD. As part of the UCD Horizons programme students have the opportunity to take elective modules from outside their own school, in addition to the core and option modules that form their own course of studies. Central to the choice of modules is the Module Descriptor MD, which provides students with information on the aim, learning outcomes and assessment practices within a given module. The module descriptor serves an administrative function within UCD, allowing centralised systems such as Registry and Assessment to document resource and space needs in any given year. However, anecdotally, the module descriptor also plays an important role in informing student module choice.

**Research Design**

This study combines qualitative and quantitative research techniques in order to balance the limitations of one technique with the strengths of the other (Tashakori & Teddile, 2003). Specifically the study employed a sequential design (Cresswell, 2003), which combines techniques in sequence, with earlier phases informing later phases. The present study incorporates three main phases. The first phase of the study aimed to examine the assessment methods used in first year modules and explore patterns such as the timing and weighting of the components of assessment. A content analysis was conducted on institutional information held on all first year delivered in 2011-2012. Phase Two used an anonymous self-report survey distributed to staff involved in first year modules in 2011-2012 and 2012-2013. The survey aimed to examine the factors that influence assessment, particularly the supports for and barriers to effective assessment practice and the factors that underpin choices in assessment techniques and strategies. The final phase involves case studies of four sample modules to examine in more detail the factors influencing the practice of assessment.

**Phase One: Analysis of First Year Modules**

Phase One examined institutionally held information on 627 first year modules offered during the academic year 2011-2012. The modules were drawn from within the colleges (faculties) of Arts and Celtic Studies, Business and Law, Engineering and Architecture, Health Sciences, Human Sciences, and Science. Content analysis based on Downe-Wamboldt, (1992) was used to extract key information including the number of assessments per module, the type, timing and weighting of the assessments, and the nature of the information provided to students regarding the module assessments. Following this a frequency analysis was used to identify the relative frequency of key themes identified in the module information. Past work in this area at an institutional level by O'Neill and Noonan (2011a; 2011b) established a set of six, evidence-based, assessment design principles: regular, low stakes assessment with opportunity for feedback on their progress in-class self and / or peer review.
collaborative learning (peer and group work, project work)  
redesign of learning sequence, blended learning opportunities  
Active / task-based learning with more authentic assessments (subject / discipline identity)  
Student work-load within the module and in parallel modules.  
The current analysis will explore module alignment with these principles.

**Phase Two: Survey examining the Practice of Assessment**  
Building on Phase One, the aim of Phase Two was to is to explore staff views on the practice of assessment.

**Participants and Sampling**  
Phase Two used an exhaustive sampling method, with all staff listed as module coordinators on first year modules in 2011/12 and 2012/12 targeted for participation. A list of all possible participants was generated based on institutional records, and this resulted in a list of 310 unique email addresses. An email was sent to all individuals by the institution's Deputy Registrar for Teaching and Learning inviting them to participate. The survey was completed 88 times, giving a response rate of 28.4%, but the response rate to individual questions varied, particularly in relation to open-ended questions. On review, 10 cases were removed as there were no valid answers provided, thus giving a response rate of 25.2%.

The sample consisted of 43 females (55.1%) and 33 males (42.3%), with the remaining participants not indicating gender (2.6%). Participants included representatives from all seven colleges (faculties) in the institution, with the largest number of responses drawn from Arts/Celtic Studies, Health Sciences, Human Science and Science. The group had worked in the institution for between <1 year and 35 years (M = 11.4, SD = 7.3), coordinated an average of 1.8 first year modules (SD = 1.3) and taught on an average 2.6 first year modules (SD = 1.9). Almost two-thirds of the sample (62.8%, n = 49) indicated that they had held a formal teaching and learning administrative role, including Head of Teaching and Learning, Exam/Assessment Coordinator, Programme Coordinator, and Assessment Appeals Coordinator.

**Survey Design and Content**  
The survey was guided by the literature in the area and informed by a set of exploratory interviews with seven key informants (four male, three female). The informants were purposively selected to provide an insight into assessment issues from the perspective of staff directly involved in first year teaching, administrative staff involved in coordinating or managing aspects of assessment, and staff involved in senior management or administrative functions within the university.

The survey contained six sections and was delivered using the Qualtrics survey software.  
The sections included:  
Demographic Information  
Patterns of use and usefulness ratings of a range of assessment techniques  
Associated workload for staff and students for a range of assessment techniques  
Questions on the institution's published assessment principles  
Factors influencing assessment practice  
Views on the module information system within the institution

The range of assessments listed for comment included 32 different types of assessment, based on the institutions guidelines on assessment in first year.

**Phase Three: Case Studies**  
The aim of the final phase (which is ongoing) is to examine the practice of assessment in more detail from the perspective of both staff and students.
Sampling Cases
Based on the database generated for Phase One, a stratified sampling strategy was developed. The authors identified three core sampling criteria that underpinned the strategy. The first was the size of the module, with all modules classified as being above or below the mean of 100 students. The second criterion was the number of discrete assessment components as presented in the module description, with modules classified as being above or below the mean of 2.5 assessment components. To generate the case studies all modules from the database were stratified based on the first two criteria and ordered alphabetically. This resulted in four groups of modules:
Under 100 students, under 2.5 assessments
Under 100 students, over 2.5 assessments
Over 100 students, under 2.5 assessments
Over 100 students, over 2.5 assessments

Using randomly generated numbers eight modules were selected from each group for further classification. These modules were then categorised based on the nature of the assessments, as documented in the module descriptor. This was classified as representing traditional assessment (exam, essay, and/or attendance) or non-traditional (more varied assessments, participation, etc.). Where the eight modules selected in each category did not include four traditional and four non-traditional, additional modules were randomly selected until the sampling frame included at least four modules of each assessment type.

Procedure
The final sampling frame included modules in each of the four categories, with at least four classified as traditional assessment and four as non-traditional assessment in each grouping. The module coordinators for the first module selected for each type were contacted and invited to take part in the study. Module coordinators were invited to provide the research team with any formal course documentation (including handbooks, assessment details etc.), to share formal student feedback on their module, to take part in an interview on the assessment used in their module, and finally to issue an invitation to students in the module to take part in a focus group on their experience of assessment techniques used.

Findings

3.1 Findings from Phase One

Documented components of assessment
The mean number of discrete components of assessment listed in the module descriptor was 2.5 (range 0-8). 78.9% (n=495) of modules had one, two or three components of assessment while 16.8% (n=105) used four or more components of assessment. Worryingly, no assessments were listed for 4.2% of modules (n=26).
A total of 1,501 individual components of assessment were identified across the first year modules based on the predefined assessment fields available on the UCD curriculum management system. The most popular field selected was 'Exam' (27.6%; n=414). This was followed by 'Continuous Assessment' (12.5%; n=188), 'Assignment' (11.3%; n=169), 'Class Test' (11.0%; n=165), 'Attendance' (8.3%; n=124), 'Essay' (6.1%; n=92) and 'MCQ' (4.7%; n=71).

Alignment with UCD assessment design principles
From the module descriptor data it is possible to consider the evidence of alignment of the modules to four of the six principles: 1. regular, low stakes assessment with opportunity for feedback on their progress, 2. in-class self and / or peer review, 3. collaborative learning (peer and group work, project work), and 5. Active / task-based learning with more authentic assessments (subject / discipline identity).
Principle One: regular, low stakes assessment with opportunity for feedback on their progress: As we see from the data on the number of assessment components, 286 modules (45.6%) had three or more components of assessment in contrast to the traditional two components at 26.0% (n=163). Only 1.3% (n=8) mentioned ‘feedback’ in the ‘module description’, 'learning outcomes' or 'assessment details' fields while the remaining 98.7% (n=612) made no mention of ‘feedback’ in these fields. Formative Assessment was only mentioned directly in one module descriptor in the ‘assessment details’ field while one further module listed a component of assessment with a 0% module weighting.

Principle Two: in-class self and/or peer review: Self-assessment was only mentioned once in the ‘learning outcomes’ field and peer-assessment / peer-review was mentioned in five module descriptors.

Principle Three: collaborative learning (peer and group work, project work): Group work and project work made up 5.2% (n=78) of the specified modes of assessment from the predefined fields however ‘group work’ was mentioned 85 times, ‘project work’ 105 times and ‘teamwork’ 11 times in the module descriptors.

Principle Five: active / task-based learning with more authentic assessments (subject/discipline identity): While this is also clearly linked to Principle Three, a review of the module content shows that ‘case studies’, ‘professional skills’, ‘practical’ assessments and ‘OSCEs’ are not the norm across the first year modules as a whole, and are generally more common in those modules associated with professional degree programmes.

3.2 Findings from Phase Two
As part of the survey participants were presented with 32 individual assessment types (based on guidelines provided by UCD Teaching and Learning) and asked to report their use of these assessments in first year modules. Figure 3 below presents the range of assessment types and the number of participants reporting use of each type. While there is more variation in assessment evident compared to Figure 2, there is still a higher frequency of reports of using essay and exam-based assessment.

The data were further analysed to identify the number of different types being used by participants, and the frequency ranged from using none of the methods (reflecting a combination of missing data and reporting that the method was not used) to using 16 of the types listed (across multiple modules). The average number of assessment types used was 3.5 (SD = 3.5).
Participants were also asked about their awareness of the UCD Assessment Principles (described above). Overall, 25.9% of those who replied reported that they were very aware of the principles, 38.9% were somewhat aware, while 35.2% were not aware of these principles. Participants were also asked to report their level of agreement with a set of statements regarding use of the principles, and responses are presented in Table 1 below. It is notable that the principle participants agreed with least often was the use of in-class student and peer review, while almost all of those who responded agreed that they try to sequence assessment effectively.

Table 1: Proportion of valid responses regarding use of assessment principles

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Agree/Agree</th>
<th>Neither Disagree/Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>I use regular low stakes assessment and feedback</td>
<td>48.1%</td>
<td>27.8%</td>
</tr>
<tr>
<td>I use in-class student and peer review of learning</td>
<td>25.9%</td>
<td>20.4%</td>
</tr>
<tr>
<td>I use well-structured collaborative learning and assessment</td>
<td>46.3%</td>
<td>31.5%</td>
</tr>
<tr>
<td>I try to effectively sequence module learning and assessment activities</td>
<td>96.4%</td>
<td>3.6%</td>
</tr>
<tr>
<td>I use active/task-based learning using authentic assessments</td>
<td>65.5%</td>
<td>21.8%</td>
</tr>
<tr>
<td>I try to reduce student assessment workload within and across modules</td>
<td>47.3%</td>
<td>32.7%</td>
</tr>
</tbody>
</table>
In rating the principles themselves, 44.4% rated their clarity as good or very good, 38.9% rated their relevance to teaching as very good or good, while 38.9% rated their usefulness as good or very good.

The final section of the survey considered in the current paper were the factors reported to influence the participants’ assessment practice. The survey presented participant with a range of options and Table 2 below reports the extent to which these were rated as important influences.

<table>
<thead>
<tr>
<th>Table 2: Factors influencing assessment in first year</th>
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<tbody>
<tr>
<td></td>
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<tr>
<td>Impact on staff workload</td>
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<td></td>
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<tr>
<td>Impact on student workload</td>
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<tr>
<td>Level of the module</td>
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<tr>
<td>Student profile</td>
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<tr>
<td>Student feedback</td>
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<tr>
<td>Measuring student performance</td>
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<tr>
<td>Ensuring students meet core learning outcomes</td>
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<tr>
<td>Trends in student performance</td>
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<tr>
<td>Developing generic skills</td>
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<tr>
<td>Developing specialist skills</td>
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<tr>
<td>Timing of assessment</td>
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<tr>
<td>Balance of assessment</td>
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<tr>
<td>Class size</td>
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<tr>
<td>Teaching space available</td>
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<tr>
<td>Resource implications</td>
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<tr>
<td>Colleagues’ experience</td>
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<tr>
<td>School guidelines</td>
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<tr>
<td>University guidelines</td>
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<tr>
<td>University teaching and learning resources</td>
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<tr>
<td>University assessment principles</td>
</tr>
<tr>
<td>Professional requirements</td>
</tr>
<tr>
<td>Established practice in the discipline</td>
</tr>
<tr>
<td>Literature on teaching and learning</td>
</tr>
<tr>
<td>Personal teaching philosophy/interests</td>
</tr>
</tbody>
</table>

A number of patterns are evident in the table. To begin, no items are rated as unimportant or very unimportant by large proportions of the sample: with the exception of Professional Requirements (24%) the figures for unimportant are below 20% and generally below 10%. The lack of emphasis placed on professional requirements may reflect the introductory nature of many first year modules. The items that had the highest ratings of importance (>90%) included student workload, balance of assessment, ensuring outcomes and resources. However, it is interesting to note that formal guidelines (including those at school and university level) were seen as important by less than half of the sample.

3.3 Findings from Phase Three
The case studies are underway and eight modules have been selected for this phase of the study. The modules are drawn from across the university and include subjects from arts, humanities, business and health science. Module coordinators have been asked to provide documentation on the module and assessment practices, and students will be invited to contribute to focus group discussion on the assessment across these modules.
Discussion

When compared to institutional data for the 2010/2011 academic year published by O'Neill and Noonan (2011a), the number of discrete components of assessment has come down from a mean of 2.8 per module to a mean of 2.5 per module for 2011/2012, while the number of modules with three or more discrete components also dropped from 53.4% to 45.9%. This may indicate a slight reduction in terms of discrete components of assessment between the two academic years, or, as O'Neill and Noonan focused on semester one, an increased semester one assessment load. The institutional focus on first year assessment practice may thus have contributed to this reduction in the means. Despite it being clear from the types of assessment employed that there is an emphasis on end of semester examinations, the wide range of approaches employed reflects similar variations noted in the literature (Craddock and Mathias, 2009). Looking to the survey findings, while there is evidence of greater variation in assessment types when a larger range of options are provided, there is still a clear focus on exam-based assessment, though the options used here are also varied.

In terms of alignment with four of the assessment design principles, it is reassuring to see evidence from the module descriptors of some modules aligning to these principles. The limited evidence of specific reference to feedback and formative assessment in the module descriptors, two key areas in learning at third level (Brew et al., 2009), may highlight a need for development, but it must also be considered that many staff may not be explicitly indicating their use within the confines of the descriptors. Self and / or peer assessment, collaborative learning and active / task-based learning also appear infrequently across the module descriptors, and again this likely indicates both the need for further development and the lack of specific details provided in many cases. These patterns are further supported by the survey findings, with student and peer review reported less often than other assessment principles.

The development of all of these assessment principles, and the explicit statement of their use in the descriptors, would facilitate and highlight assessment for transition, development and achievement as outlined by Taylor (2008). It remains clear that many of the principles are not being employed universally, though it is possible that this reflects the publication of the principles in 2011 at a time when many module coordinators had already decided on the content of their module descriptors and assessment strategies for the 2011/2012 academic year. However, the finding that a wider range of assessment types elicited more variation in types reported may point to a limitation in the information staff are asked to provide in the module descriptor. If this is the case, it has implications for those students who use the information in the module descriptor to make choices regarding optional and elective modules.

Looking to the factors that influence the choice of assessment practices by staff, the survey findings highlight the range of factors that are considered to be important influences. While further analyses of these data are ongoing the patterns reported above suggest that student-based factors (such as achievement of outcomes, workload and balance of assessment) are rated most highly. The lower ratings for institutional guidelines such as the Assessment Principles may point to a risk of variation across the University, as individual module coordinators, schools and programmes may not benefit from the coherence that these university level guidelines could bring.

Conclusion

The research conducted to date suggests that assessment practices in UCD reflect many of the patterns and challenges considered in the literature, including a reliance on formal
exams taking place at the end of the semester. However there is also evidence of many other forms of assessment and awareness of the importance of assessment. The next phase of this research will provide a more detailed insight into the factors influencing assessment practice, and it is hoped it will serve to highlight opportunities for supporting the continued development of assessment practice in first year at UCD.

References

Goos, M, Gannaway, D and Hughes, C (2011) Assessment as an equity issue in higher education: comparing the perceptions of first year students, course coordinators, and academic leaders, Australian Educational Researcher 38(1): 95-107


Empowerment of academic staff through mentoring and coaching

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ABSTRACT: Mentoring and coaching offer meaningful and significant ways in which academic staff can encourage and support each other in their professional development and ultimately go on to enhance the student experience. The Edinburgh Napier Mentoring and Coaching Award (ENMCA) aims to provide a framework for this activity that includes scholarship, reflective practice and peer support, designed to enable the mentor/coach and mentee/coachee to identify and work collaboratively towards achievement of the mentee’s development goals. This paper explores if and how mentors who have participated in the ENMCA report empowerment through the learning and mentoring practice of the programme, and to evaluate the impact this might have on the institution, such as supporting achievement of the strategic aim of academic excellence and demonstration of organisational values such as professionalism, ambition, inclusion and innovation.

1 Introduction

Mentoring and coaching are one-to-one developmental relationships or learning alliances (Clutterbuck, 1998a) at the heart of which is the provision of space and time for reflective dialogue and a unique combination of challenge and support. These may be considered to be forms of learning conversations, offering space and time for exploration, reflection, challenge and support (Garvey et al, 2009). Creating a pool of staff who are able to work in this way extends the opportunity for colleagues to learn from and with one another, and also offers the potential to develop learning and teaching practice across the institution and, ultimately, to enhance the student experience. By building such capacity it is potentially possible to provide this type of one-to-one learning to a broad range of staff, whereas in some organisations mentoring and particularly coaching are seen as a type of professional development reserved for senior management.

It is recognised that many individuals have been mentoring and coaching their colleagues within the University in a variety of ways over many years including directly supporting academic practice enhancement and professional development. However, this has usually been informal, unrecognised and not always supported by theoretical underpinning. Therefore the ENMCA is a means to formally recognise participants’ existing mentoring expertise and to extend this (Benzies & Mowat, 2012a and 2012b). The ENMCA, designed to support and recognise mentoring and coaching for the specific purpose of enhancing academic practice, is in its second iteration, following a successful pilot in 2012. It comprises four one-day workshops and ten hours of mentoring and coaching practice over an eight month period and seeks to combine skills development with an exploration of scholarship in the field. The aim is for participants to engage in a developmental journey, to share experiences and to provide mutual support. Workshops are designed to be highly participative and a regular feature involves participants working together in action learning sets to explore and respond to dilemmas arising in practice. The Code of Ethics from the European Mentoring & Coaching Council (EMCC, 2008) forms the basis for ethical practice within the programme.

Learning is supported online by access to a variety of resources and opportunities for pre and post workshop discussion on the University’s VLE. Participants are expected to undertake relevant practice with at least two colleagues over the course of the programme. They also have two individual supervision sessions with a qualified mentor/coach supervisor. These are designed to provide a safe space for each individual to reflect on their practice, to
help anticipate and prevent and/or solve mentoring dilemmas, or simply to explore application of theory and techniques.

Three assessments are designed as opportunities to reflect on stages of the mentoring process and on personal development as a mentor. As the work is oriented around academic rather than general professional practice, the UK Professional Standards Framework for Teaching and Supporting Learning in Higher Education (Higher Education Academy, 2011) becomes a useful point of reference in discussions. Mentoring and coaching are included in the criteria for award of Senior Fellow of the Higher Education Academy so the assessment scheme requires participants to provide a commentary against the UKPSF to show how they have supported colleagues in their academic practice and to reflect on their own development against Clause VII of Descriptor 3 (D3). Work done within the ENMCA may be used as part of the evidence for an application for professional recognition against Descriptor 3 of the UKPSF and may include helping prepare colleagues for professional recognition against Descriptors 1 to 4 of the UKPSF.

The ENMCA aligns directly with the Staff and Educational Development Association (SEDA) Professional Development Framework (PDF) award for Mentoring and Coaching, which was developed by Edinburgh Napier as a precursor to the creation of the ENMCA (SEDA, 2011). The PDF identifies a set of underpinning values and core learning outcomes that are common to all the named awards, together with specialist learning outcomes, with all outcomes formally assessed. The values describe an approach to learning, characterised by pedagogical expertise and scholarship, reflective practice, and support for the development of individuals and learning communities; core learning outcomes address the area of identifying, planning and successfully engaging in continuing professional development. The specialist learning outcomes allow participants to:

Recognise where mentoring/coaching may be beneficially used for staff development
Develop and implement strategies and plans for mentoring/coaching schemes or for the mentoring/coaching of individuals
Demonstrate understanding of mentoring/coaching theory and process in order to effectively mentor/coach colleagues in connection with one or more specific professional development objectives
Analyse and apply information from the relevant literature and from other sources (e.g. experience, peers) to inform and enhance mentoring/coaching practice.

Participants in the programme have included academic and professional services staff from a range of disciplines, a key selection criterion being their ability and opportunity to mentor and coach colleagues in relation to teaching and supporting learning. Some join the programme with previous experience of mentoring or coaching and the Award offers a new opportunity for recognition of their practice, as well as the chance to further develop their skills and theoretical knowledge while applying this to the enhancement of academic practice. The 2012/13 cohort comprises nine participants within two of the three Faculties and from two professional service areas. With each mentoring between two or three colleagues, there are currently around 30 people benefitting from the programme.

2 ENMCA approach to mentoring and coaching

Definitions of mentoring and coaching are numerous, varied and contested. One aim of the programme is to draw upon the collective scholarship of the group of participants and tutors to help define an institutional practice approach to mentoring and coaching. Our emerging model is non-directive and developmental, rather than managerial or didactic (Clutterbuck, 2004). This may be considered to be aligned with Brockbank and McGill’s (2006) engagement and evolutionary approaches which support reflective learning for both improvement and transformation. The notion of the ‘British Eclectic Model’ (Megginson and
Clutterbuck, 2005) also informs the ENMCA approach, encouraging engagement with a wide variety of models and theoretical approaches, while prioritising what is appropriate for the client.

Power is an important and inevitable consideration in mentoring and coaching. Loosely defined as the 'ability to get things done' (Clutterbuck, 1998b) power can emerge as a dynamic within relationships as a result of differentials in knowledge, experience and influence. Within a developmental, non-directive approach, it is critical for mentors and mentees to be aware of power issues and to have strategies to help address them effectively. Being explicit about power issues within the relationship offers important opportunities for insight and new learning for both mentor and mentee (Brockbank and McGill, 2006).

The exploration of power in mentoring and coaching relationships has arisen naturally within the ENMCA, as participants bring their experiences to action learning sets or reflect on them in their assignments. Typical issues include: having to manage the boundaries of other mutual interactions that exist outside the mentoring and coaching relationship, negotiating decisions over practicalities such as when and where to meet, mentees investing 'guru' status in the mentor and pairings where colleagues are in very different roles and hierarchical levels in the university. We have created specific opportunities to address such issues through inviting a guest speaker to share experiences on the area, designing relevant workshop sessions and providing access to relevant literature and resources. In the second workshop the cohort explores definitions, perceptions and experiences of power in mentoring and coaching relationships, considering the positive and negative aspects and any differences in these learning processes.

Empowerment has been defined as 'a multidimensional social process that helps people gain control over their lives.' (Page and Czuba, 1999 cited in Mackenenzie et al, 2010, p15). Clutterbuck (1994) relates empowerment to individuals gaining more control over their working environment, enhancing their contribution, and taking opportunities for personal growth. In terms of mentoring and coaching practice and empowerment, it is pertinent to note the distinction between approaches in which the status quo remains unchallenged and relationships in which clients are encouraged to question the 'taken for granted' aspects of their situation (Brockbank and McGill, 2006). On a similar note, AngeliQue et al (2002) describe an alternative approach to professional development for academic staff, based on a dynamic and fluid grouping of mutually supportive peer relationships, committed to sharing power, making connections and capable of questioning orthodoxies. Such relationships are a vehicle for empowerment: 'By becoming a collective, we are able to take risks and negotiate the power structure of the university in ways that individual, unempowered, untenured faculty members can rarely do alone' (p206)

The outworking of empowerment in mentoring and coaching within the ENMCA approach may be considered to a feature of the design of the learning and the interactions with programme participants in the following ways:

The interactive and participative nature of the face to face sessions uses tutors as enablers of learning, rather than presenters of material, and recognises the experience that participants bring as learners, teachers and mentors/coaches. The tutors design the programme framework, provide appropriate input and guidance for participants' own learning and a 'lens' to see that through;

Support for the set-up of mentoring and coaching relationships with two clients to enable practice of concepts explored in a client-centred and ethical manner over an extended period;

Action learning sets to allow participant articulation of issues arising in practice, to practise active listening and effective questioning techniques, and to learn strategies for action
planning as a group of peers. Having provided the framework for the action learning process, each set is given control of the process and its evolution. Participants are enabled through the reflective and flexible nature of the assessment design to present unique aspects of learning on key stages of mentoring and coaching development and examine models, tools and techniques and their effectiveness, adapting these or creating new ones. Empowered through assessment flexibility and individuality that allows for different personal approaches and choice over format. Assessment for learning extended to group learning by the sharing of selected and unique insights from assessment with the other participants. Permission to experiment within a clear ethical framework, bounded by the emerging Edinburgh Napier model. Empowered by providing details of and support to engage in development opportunities during the programme such as writing on mentoring or coaching for internal journals and attending or participating in conferences.

3 Research design

As power and empowerment in mentoring and coaching had arisen in the course of the programme, it was decided to extend this into a small qualitative research project. The aim was to explore if and how mentors who have participated in the ENMCA report empowerment through the learning and mentoring practice of the course, and to evaluate the impact this might have institutionally, such as achievement of the strategic aim of academic excellence or demonstration of organisational values such as professionalism, ambition, inclusion and innovation. An ethnographic approach is being taken and the analysis is thematic, seeking to find the key issues of empowerment as perceived by programme participants (Cohen et al, 2007).

Following discussion with ENMCA participants around issues relating to empowerment at a programme workshop in February 2013, the researchers are now engaged in the process of conducting individual interviews to explore responses in further depth. A convenience or opportunity sample approach (Cohen et al, 2007) is being taken, with eligible participants in the research being current ENMCA participants. A sub-set of the interviews to date has been selected for analysis in this first phase in order to present early findings on key emerging themes at this conference. The work will continue beyond this as the interactions in workshops, assessment responses and participant feedback on supervision sessions over the programme indicate that a deeper study is merited. Further research and outputs are planned for the next 18-month period, including investigation of mentees’ perceptions.

4 Emerging themes from the interviews

The responses so far tend to focus on mentoring rather than coaching so the terms mentor, mentee and mentoring are used throughout this section, with coaching highlighted where applicable.

4.1 Definitions and effects of empowerment

Having ownership of one’s own work and the power to change it was an important aspect, as were feelings of confidence in abilities, of being seen as a valued member of the team, to be heard and invited to contribute to the team and that contribution being seen as important. It was felt that empowerment allows for a sense of self-direction and increased autonomy but this might require a shift in management approach to be more supportive and less constraining(directional). Receiving good feedback from students and colleagues was seen as empowering and indicated the importance of perceptions of self-efficacy, together with feedback on performance from others.
Some mentors defined empowerment as supporting mentees to explore new tools and techniques; success was defined as the mentee being able to take the tools and use them without mentor support. Empowerment was also seen as enabling someone to perform well in their role, making them more independent and able, increasing confidence and willingness to be visible. Beyond performance, there was a notion of enabling a mentee to have a bigger vision of themselves and their situation and feeling more mentally able to enter that space and perform confidently and competently.

Respondents felt that there was potentially significant impact of the empowerment of staff in terms of enhanced work performance, sense of ownership of one's role and being able to see new possibilities or opportunities, including working across organisational boundaries all of which have the potential to ultimately lead to enhancement of the Student Experience. This was felt to arise from how a person perceives their role or situation and takes control, rather than the role or situation having changed. Empowerment was indicated to some partly through a sense of respect for the individual and their decisions, and the confidence and enhanced self-esteem of that individual leading to better performance. Feeling valued by the University was reported as positive and the very fact the programme was running was seen by some to mean the organisation is paying attention to mentoring, its importance and valuing its staff.

4.2 Mentor empowerment

Mentor empowerment was reported by one respondent as being empowered in ways she did not realise she needed empowering in, which was perceived to provide significant gains in enhancing the professionalism of her mentoring practice.

A greater understanding of oneself and the differences in personality and approaches of others was fostered during the programme. This had been achieved mainly through the use of Myers Briggs Type Indicator (MBTI) testing, one-to-one feedback on the assessment results and subsequent discussions at workshops on the implications for the mentoring and coaching practice of individuals.

The acquisition of tools and techniques for mentoring added to the sense of having options to consider one's own approach to life and work as well as that of the mentees. There was a sense from those interviewed of beginning to feel empowered, to see the potential and possibilities for empowerment and of being on a journey towards that, rather than feeling empowerment had been achieved. There was a feeling of having been empowered by the programme.

4.3 Mentor perceptions of mentee empowerment

Mentors were asked about their perceptions of mentee empowerment. However, it was noted that a mentee 'empowerment baseline' had not been established or discussed explicitly during the relationships so it was difficult for mentors to comment and felt more appropriate for mentees to state the extent to which they felt empowered. Also it was reported that conversations had been positively focused on what the mentee could do and identifying what further action they themselves could take, rather than embarking on a discussion that might lead to apportioning blame. It could be argued that it is both psychologically healthy and empowering to focus on accepting responsibility for oneself and exploring one's choices in a supportive manner. Mentors felt that mentee empowerment was evidenced in their learning and reactions within the mentoring discussions. Mentee feedback to mentors has provided some examples of empowerment with mentees able to make changes, improvements and progress towards their goals with tangible outcomes reported such as one mentee obtaining an academic post and another having published their first article over the course of the relationship.

4.4 Mechanisms of empowerment
When asked about what created or contributed to any sense of mentor empowerment experienced, answers included: the design of programme and a sense of progressing through stages within it; the interactive and participative nature of the workshops; the sequencing of the workshop activities; the way assessment has been aligned to learning and practice; having two supervision session at intervals in the programme perceived to be helpful and the timing of the MBTI element. Participants commented on the need for time for assimilation of new knowledge, being able to use the learning to synthesise new perspectives on the nature of the one-to-one learning relationship and mentor/coach role and applying this. Importance was placed on being enabled to develop one's practice with volunteer mentees, to reflect on it, to discuss deeply in supervision sessions, as well as the integrated nature of assessments and the support during the assessment process as a way to grow in confidence. Participants valued the opportunity to work with colleagues from across the university in different perspectives in a safe environment. Getting to know mentees, their aspirations and then contracting to 'unlock' a little of that for them provided a sense of empowerment and satisfaction, as did 'Eureka moments', i.e. when the mentor helped mentees see things clearly, which was felt to be well aligned with participants identity and aspirations as a teacher.

4.5 Organisational benefits and challenges

The ENMCA programme supports Edinburgh Napier University's strategic aims of academic excellence; the creation, exploitation and transfer of knowledge; and achievement of the highest organisation standards. It also maps to the following aspects of the University Learning, Teaching and Assessment Strategy (Edinburgh Napier University, 2009):
- Teaching is highly regarded and valued
- We seek to appoint and develop high quality staff
- We encourage academic leadership and excellence
- Respondents identified a range of potential direct and indirect benefits to the organisation from their mentoring practice. These included staff developing fresh perspectives and enhancing their performance, to the development of stronger working relationships and productivity in specific areas of academic practice such as publishing. A potential impact on students was also highlighted, with a positive cycle of more empowered staff leading to more empowered students identified as another possible long term outcome. However respondents pointed out emerging challenges to the organisation, such as the impact of more assertive individuals better able to prioritise and saying 'no' to certain tasks in a professional 'managed not moaning' way. This raises questions around the ability of organisations to cope with more empowered staff members, willing to address some of the assumptions about 'how things are done around here'. Could the organisation see past such initial concerns, identify possible longer term returns and feel able to take the risk? In the face of a difference of view over what or how much should be done, could the organisation envisage a professional dialogue that could seek to involve empowered staff working with managers to find optimum solutions to the work challenges posed?

Mentors also highlighted paradoxes around the perception of support from the institution; on the one hand support was acknowledged by the availability of the development opportunity and the chance to participate; on the other hand mentors have had to use much of their own time to complete the programme.

4.6 Aspects of ENMCA programme important to empowerment

Participants were asked to reflect on what, if any, aspects of the ENMCA programme had been important to them in relation to empowerment. The following points emerged:

The opportunity to challenge assumptions of organisation, self, role and capabilities
The academic rigor in the delivery approach and encouragement to examine the evidence, rather than simply accept
Professionalism of programme, its facilitators, mentors and mentees
Workshops for discussion of practice and the action learning sets to explore emerging issues with peers, in a safe space where other perspectives are valued.
Online access to resources was viewed as helpful in the context of targeted engagement at a time to suit the participant
Supervision sessions were highly valued and deemed on the whole to exceed expectations, with participants surprised that most of session was focused on them as mentors rather than on mentees
Small programme group size was helping in getting to know people, as was facilitated discussions, and the experience felt inclusive

4.7 Other relevant factors in empowerment

At the end of the interview participants were asked for any additional comments they felt relevant to empowerment. These included challenges around individual differences in perceptions of empowerment compounded by different personalities and varying mentor expertise and/or competence, along with concerns over managing the potential for mentee dependency. Difficult mentees may limit sense of progress for the mentor though a greater appreciation from ENMCA of individuals’ different approaches has allowed participants to be more acceptant of and better prepared for this. A significant aspect of development has been the increased self-awareness of the participants e.g. the challenges of deep listening, resisting a personal urge to ‘fix’ the mentee’s problems. A need was identified for additional resources to support the matching process, without the organisation being too ‘managerial’ in its support. Participants valued the fact that the mentoring framework is not too constrained by the organisation in terms of meeting patterns, duration of relationship etc. and it was perceived that this could be more challenging if the scheme became more ‘formal’. There were concerns about having time for professional practice, including preparation, when the programme is over. Questions were asked about how the supervision needed to ensure good practice in this responsible role will be provided in the future and, finally, if the organisation can meet trained mentors’ expectations.

5 Other experiences of mentoring in higher education

A study of a mentoring program (i.e. a scheme to match mentors and mentees rather than a programme of study) for academics in the University of Sydney examined the benefits arising from moving from informal mentoring to something more structured, albeit retaining what were described as the best aspects of the informal approaches previously used (Bell and Treleaven, 2010). In examining the factors contributing to its success, the provision of guidelines, resources and the formalisation of contracts were considered by participants to be helpful but factors including the sense of informality, freedom to choose how to use the resources, when to meet and the fact that participation in the programme was not compulsory were valued. Some were paid as recognition of their time investment, though other forms of recognition were important, such as a note of thanks from a Dean, and there were also volunteer mentors who saw mentoring as part of their leadership role.
Interestingly, ‘Having participated in the program or being experienced informal mentors, few mentors felt they required formal training, with most unwilling to allocate time for training’ (p62).

The researchers analysed 70 reflective statements from mentors and mentees from a four-year period of operation and found significant benefits reported for both mentors and mentees. For mentees, these included: career development, assistance with research bids and papers, feedback on teaching, networking skills, improvement of time management and developing research-teaching linkages. For mentors, enhancement of leadership skills and a
sense of satisfaction from being able to give and receive were noted. Interdisciplinary and the development of collegiality was a benefit, with some mentor and mentee pairs going on to produce collaborative work such as research papers.

Felton et al (2013) talk of formation as a means to engage in the development of the whole person, rather than just developing intellectually, and mentoring happens in the context of 'Formation Mentoring Communities' (FMC) which comprise academic and other staff in supportive peer relationships:

'our ... experience ... attests to the power of a small community of peers to encourage and support individual creativity, authenticity, integrity and change. ... All the faculty and staff who participated were able to identify and connect to their core values, revitalise their individual dreams, and renew their commitment to goals that serve as a foundation of their work and their lives.' (p31)

This view of mentoring is perhaps significant as we move from ENMCA 2012/13 into further development and practice and extend the invitation to programme completers to join a university special interest group in mentoring, SIG-M.

6 Discussion

The experience of the ENMCA and the findings of the research so far indicate that the programme is highly valued by mentors as it offers these participants what they describe as a high quality learning experience that aligns with their values and interests and provides the opportunity for meaningful engagement with their colleagues in the University. The design of the programme is seen to facilitate empowerment in the nature of the interactions with tutors and peers and by being supported in the practical work, facilitating growth in confidence. The opportunity to develop and use mentor/coach skills to assist and empower others in achieving their goals is seen as highly satisfying and being able to do the programme was felt to provide legitimacy to current mentoring practice. Development of a collegial atmosphere was noted as a benefit and mentioned by participants as aspect of empowerment.

Information on mentee effects is limited at this point in the research but feedback to mentors and their observations indicate that mentees are obtaining some significant benefits in development of confidence, enhanced self-esteem, better self-management and achievement of career goals. This range of effects is indicated by Kay and Hinds' (2009, p5) definition of mentoring as 'a developing relationship encompassing a wide range of issues' which can help an individual achieve their 'vision for the future'. Perhaps this articulation of vision is where the empowerment starts, with the mentor facilitating and supporting the mentee's analysis and decision-making.

It seems to participants that the organisation is indeed gaining benefits, though some felt that these may be indirect and one person described them as 'hidden', referring to the programme lacking visibility at this point in time. While an institution has potentially much to gain from more engaged, confident and self-directed staff, there is an inherent tension between the implications of having more empowered individuals and managing the day-to-day demands of the organisation. We look forward to exploring this in further research.

7 Conclusions and next steps

The research work is at a relatively early stage, with the next steps being to complete the interviews and analysis with the remaining mentors in this session’s cohort before beginning to evaluate mentee experiences. Consideration will be given to other institutional schemes, with a view to further developing links and learning from their approaches, as well as continuing to develop our own practice within the ENMCA programme and SIG-M.

As the ENMCA seeks to build mentoring and coaching capacity in order to enhance academic practice, empowerment of those involved in teaching and supporting learning is a key component of the success of this initiative; such empowerment applies to both
mentors/coaches and mentees/coachees and reflects something of moving from informal mentoring and coaching to practice that is legitimised and supported by the organisation. An upcoming presentation on the ENMCA will give senior management and others the opportunity to discuss the work to date and consider its linkages to initiatives such as the anticipated introduction of an HEA-accredited professional recognition scheme and the development and support of programme leaders. We now have the opportunity to decide how we take this forward, secure support for the programme and ensure the organisation is prepared for the changes that may come from a growing, highly skilled and motivated group of mentors and coaches as well as a more empowered staff.

REFERENCES


Scoping the future: A model for integrating learning environments

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Abstract
The Virtual Learning Environment (VLE) has become synonymous with online learning in HE. However, with the rise of Web 2.0 technologies, social networking tools and cloud computing the architecture of the current VLEs is increasingly anachronistic. This paper suggests an alternative to the traditional VLE: one which allows for flexibility and adaptation to the needs of individual teachers, while remaining resilient and providing students with a seamless experience. We present a prototype of our vision, combining our new development software and a number of existing tried and tested tools into a single flexible interface, and built on established pedagogical and technical standards.

The origins of the modern VLE
The modern concept of the Virtual Learning Environment (VLE) or Learning Management System (LMS) first appeared soon after the advent of the World Wide Web, which made the Internet accessible to non-technical users. Prior to that online learning systems had required custom software on the user's computer, or considerable technical skills from both the students and their teachers, and so were much more specialised than the modern VLE. A VLE is simply an interactive website where software running on the server creates web pages on-the-fly in response to a client request. One of the first systems to make use of web technology for teaching was Clyde Virtual University (CVU) (Whittington and Sclater, 1998) developed by Strathclyde University. CVU contained web pages for individual courses which were only available to registered students, and which contained links to pages of learning material, quizzes and discussion forums.

More than 15 years later, surprisingly little has changed in the VLE. The typical format still consist of course pages which list relevant information, and links to web pages, forums and quizzes. Newer additions to this list include assignment upload, wikis and support for peer reviewing. Although each of these functions is quite separate from the others, all of them were built into the same large software system, typically either running on a single server or with servers split between database and other functions. These VLE systems typically take on the full online course material delivery role at the University, however they are quite separate from back-end systems that deal with student course selection and grades.

Current UK situation
In the U.K. higher education sector two VLE platforms, Moodle and Blackboard, each have a substantial share of the market, while a number of other platforms including Sakai, Desire2learn and local customizations of Sharepoint are used in very small numbers of institutions. Moodle and Blackboard both provide similar facilities for teaching staff and students. For support staff the platforms are very different, as Moodle is open-source, and adding custom features is fairly simple. Blackboard is proprietary software, and an additional licence is required to carry out any customization.

Issues with current VLE provision
While these VLEs have been very successful, and are widely used almost all universities, they do have a number of limitations. It is difficult to customise the VLE to suit specific needs of different courses, as a single instance is generally used across the entire institution, and in addition the individual components of the VLE, such as wikis or quiz systems, inevitably trail behind the features of the best specialised systems for these tasks. Where the VLE is locally hosted, a further problem faced by computing services is the issue of scalability and predicting future use. The VLE is a major application which needs to run on high specification hardware, which will be expected to last for several years. The level of use of VLEs has increased dramatically over a fairly short period, and so making predictions about the future hardware requirements is not easy. An alternative approach is to run a large
number of small servers, connected to appear as an integrated whole. This approach requires software designed to run as separate small services that can be distributed over variable numbers of servers. Recently this approach has been popularised as cloud computing, however the concept of a VLE running as a large number of small services has been around for some time.

A previous attempt to challenge this: JISC eLF
The JISC e-Learning Framework, or eLF, (JISC 2004) was intended to address the need for methods to integrate systems supporting both institutional processes and e-learning, and provide a structure that would be flexible both for pedagogy and technical innovation. The vision was for a large number of service applications, each addressing a relatively small, specific need, and communicating through SOAP web-services. This would mean, for example, that a student taking an online quiz might login using an 'Authentication' service, be guided to the assessment through 'Sequencing', and 'Activity Management' services, and then take the quiz using an 'Assessment' service. A number of projects were run, which created some of these services (and in the case of Assessment, at least three similar variants of the service) however a coherent whole failed to materialise. Fundamentally, although a good concept, the vision of eLF was too complex and the projects lacked well defined standards for communication between modules.

One of the key features of the JISC eLF was to be the use of standards where applicable, for example assessment systems were designed to be compliant with a draft version of IMS QTI 2.0. However, an appropriate standard for communication between modules was lacking. The use of SOAP web services to provide this communication was (at the time) an obvious choice, however without considerable detail about the data structures that would be passed over the SOAP communications it would be impossible to design interfaces for interoperable services in isolation.

Our Backgrounds
The presenters approach this challenge from a blend of perspectives: one is a University tutor who also works as a learning technologist; the other is a professional programmer with 25 years of experience of teaching in HE. We thus bring together pedagogical and technological considerations and incorporate both strands into one conversation.

I (Niall) have been working with learning technology for over 20 years, and when appropriate also getting involved in teaching. Initially I worked with desktop software which supported small well-defined sections of learning, sometimes written by myself and sometimes from third parties. Some of these pieces of software were intended to be complete tutorials on themselves, while others were simulations that could be used as the basis for laboratory style tutorials. While some of these pieces of software were very useful, it was clear that there was a very high ratio of software production cost to the level of use the software would get. It was certainly not viable for a single institution to be developing this type of teaching material for just their own students. The advent of the World Wide Web showed a way of producing courseware more rapidly, whilst also making it available to a much greater number of students. In 1996 I took the lead on a project developing web tutorials for anatomy, which were to be used by students at all universities in the West of Scotland. Our package included web pages containing text, illustrations, animations and videos to teach students about functional anatomy and biomechanics, and interactive quizzes for self-assessment, however other VLE features were completely missing. Frustratingly, no real assessment was done with regard to the effectiveness of this teaching material, although it continues to be available for students. My next job was as a teaching assistant for a postgraduate IT course, where I spent my time in the computing lab providing one-to-one help as required. I realised that in this context the experience of the tutor is essential, because there are a huge number of ways in which a student can be stuck with a problem and without the guidance of the experienced tutor a relatively minor issue can become a major blockage. This highlighted to me how much difference there can be in the requirements of different subjects. Previously, teaching aspects of physiology or
biomechanics to zoology students I had to explain difficult concepts, however I never saw zoology students being blocked by a single small problem.

More recently I have switched from being a developer at a department level to being part of the central support team for Moodle at the University of Glasgow, where I am mainly involved in developing new features. Moodle is a large piece of software, with a huge amount of code loaded into the server's memory every time a page is viewed. Developing new components for Moodle requires not only following the coding standards, but also making use of the underlying code wherever possible. Although the Moodle coding standards are largely sensible guidelines which prevent security issues, having to adhere to coding standards and make use of extensive existing libraries like this also make it harder to integrate software from other sources. The design of Moodle means that we cannot reasonably provide different facilities to different teaching units, and more importantly that we must be very certain of the reliability of any component that gets added to the system.

My experience providing support both at a departmental level and as a member of central services has led me to believe that we need a more flexible system, where the core features supported at university level can easily be mixed with features supported at a department level (but posing no risk to the centrally supported features.) I have also come to believe that we need to be able to embrace new ideas more rapidly, by making use of smaller specialised pieces of software rather than large relatively difficult to maintain software where appropriate.

I (Sarah) began as a Graduate Teaching Assistant (GTA) in Philosophy at Glasgow over ten years ago. We Philosophy GTAs have a fair amount of autonomy with regard to how we deliver our teaching, but the primary method is weekly face-to-face tutorials of groups of about 15 students. Philosophy has a Moodle course for each of its pre-honours courses, but these are mainly used to host lecture slides and other documents. For the last few years, the course convenor has also provided each GTA with a tutorial group forum and encouraged us to use these to inform our students about tutorial timetables, topics and office hours. Occasionally students will post a message to one of the forums, but on the whole students are passive consumers rather than active participants.

Three years ago, for a variety of reasons, I began to want a more structured approach to my tutorials, and in July 2010 I secured funding from the (sadly now defunct) Higher Education Academy Subject Centre for Philosophical and Religious Studies in order to develop collaborative learning techniques for my tutorials (Honeychurch, 2012). I call the method I developed for this project Jigsaw wikis (this method was inspired by Aronson's jigsaw classroom technique, see Aronson 1978 for example). My initial vision was one where I would deliver tutorial questions to groups of eager students prior to the tutorial, and small groups of students would somehow collaborate online in order to fill in the answers to all of the questions prior to arriving at the face-to-face weekly tutorials. This turned out to be over-ambitious, although some aspects of the technique were successful. I have since had time to reflect on my project and think about why it might not have worked as I initially expected.

When I devised my project in 2010, I had very little experience of using Moodle (I only had non-editing staff rights to Moodle courses) and no background in learning technology. This led to me making assumptions about how easy Moodle was going to be to use, both for me and for my students. In particular, I assumed that students would be far more competent at using Moodle than they were, and also that Moodle was far more flexible than it actually is.

I assumed that because my students had grown up with web 2.0 technologies such as Wikipedia and Facebook, they would all be "digital natives" (Prensky, 2001): that they would find Moodle easy to use and would be confident in writing forum posts and wiki pages. In fact, very few students posted to the forum or edited the wiki pages, although they did use
the wiki in order to download questions into a word processor and write their own, private, answers. Feedback given to me at the end of the course taught me that many students are not as digitally competent as I thought, and that they see a big difference between using the technologies they are familiar with (such as Facebook) and others such as Moodle. Although I firmly believed that the same skill set was needed, I had no way of tapping into their familiar media and embedding it into my own Moodle course.

In late 2010 I began working at the University of Glasgow as a learning technologist, and I now support staff and students on a day-to-day basis (part of my job involves answering staff and student queries sent to our help desk). This has taught me that my students and I were not unusual in our attitudes towards the VLE. Moodle 1.9 has a dated look and feel, with few of the web 2.0 features that modern students and academics have come to expect. Moodle 2 is little better. It suffices as a place for staff to upload resources and students to submit assignments, there is limited potential for self and peer-assessment, but there is little incentive for most academics to expend effort in building and maintaining courses there.

Requirements
Recently the concept of cloud computing has become popular, where large numbers of relatively low powered physical or virtual servers are used together to provide a flexible and scalable solution. Although cloud computing is normally associated with hosted services such as Google docs, or hosted virtual computing and storage such as Amazon EC two or Microsoft Azure, the same approach can be used to provide flexible scalable computing facilities locally.

By making use of some of the ideas of cloud computing it should be possible to create a more flexible system than the current generation of VLEs. As the VLE has become a core part of the systems at university level, it has become necessary to treat changes to the VLE with the same caution as with core business systems. In effect this means a VLE which cannot be customised for specific needs, and is only upgraded at widely spaced intervals. This also means that when it is necessary to change provider or make a major upgrade (for example from Moodle 1.9 to Moodle 2), it is difficult to stage a gradual migration. These thoughts have led us to come up with a list of requirements for a future VLE capable of replacing the current generation with a more flexible alternative.

The system should be designed to run either on a single large server or on multiple small servers or on a mixture of the two.
It should be easy to extend the system as required by adding further servers.
The system should support gradual revolutionary change change, with the possibility of mixing more than one version in in a university’s system.
It should be possible to add external tools, so that an individual course might consist of core tools hosted within the central IT systems, local specialist tools hosted in the Department’s own server, and external specialist tools hosted with publishers or on commercial hosting services. The link to these external tools must be designed so that there is no risk of the external tools interfering with core services.
All personal/academic data must be held in safe locations, with the minimum necessary being passed to external tools.
The system needs to be flexible in order to:
support the best emerging practice,
adapt to the changing needs of the academic community,
accommodate the diverse pedagogical requirements of a multi-disciplinary institution.
Standards that can underpin a new approach
A key requirement for systems which are to be used over a long period, or which will host material which will be needed over a time period greater than the lifespan of the system is that they have good interoperability. Whilst most of us rarely consider the issue of software interoperability, we are very dependent on it. We routinely exchange documents in Microsoft Word format, which has become the de facto interoperability format for word processing, and
colleagues making use of alternative word processors are able to open and edit the same documents. All digital cameras support the same variant of the JPEG file format, meaning that our digital photographs are easy to share and open with any standard photo viewing or editing software. Interoperability standards specific to education are less well-established however a number do exist. Of particular interest to our vision of a more flexible distributed VLE is the IMS Global Learning Consortium's Learning Tools Interoperability (LTI) specification. (McFall et al. 2012) LTI is a lightweight single sign-on system based on the well-established OAuth specification which allows external websites to be securely launched from a VLE with the minimum transfer of data needed.

LTI Launch Sequence
We have already implemented a slightly modified version of LTI to allow courses in multiple instances of Moodle to be in a customised "My Courses" list on each Moodle instance, with single sign-on enabling students to transfer between Moodle servers without having to login again. This is facilitating a staged migration from Moodle 1.9 to Moodle 2.3, without requiring students to be fully aware of the separate servers. A further enhancement intended to go live this summer replaces the navigation through categories to find courses in Moodle with a separate system that links directly into courses in in several different Moodle servers. As well as assisting with the staged migration process, this tool is expected to reduce overall server load as it is able to make use of a much simpler authorisation system than Moodle (which has to manage multiple different roles with different levels of editing and viewing rights.) Whilst developing this new front-end, we realised that there was no fundamental reason why it should be used only with Moodle, and other systems supporting the same modified version of LTI could also act as individual course servers as part of a near seamless integration.

While LTI has provided us with the basis for communication between modules a modular VLE, further interoperability standards are also incorporated in our vision. The IMS Common Cartridge (Kahn 2011) specification provides a basic format for transferring the learning material for modules and courses between VLEs. Common Cartridge includes links to external LTI resources, and so is very compatible with our vision. Common cartridge also includes a profile of IMS QTI version 1.2 for exchanging simple assessments, however we believe that QTI 2.1 (Kraan et al. 2012) is now ready to become the standard for this type of assessment. The e-assessment projects that were part of the JISC eLF provided the basis for a number of further projects, and two of the most recent projects, QTI-DI and Uniqurate have delivered the basis for a flexible open source LTI connected e-assessment platform which is substantially more powerful than existing systems.

Our university, like many others, has back-end systems that support the IMS Enterprise Web Services and Learner Information Profile (LIP) specifications. These will provide the basis for communication between the modular VLE and backend management systems, acquiring
information such as student course enrolments, and returning grades. Although LTI provides the basis for transferring logins between modules, some further information also will need to be transferred to make a fully integrated system. We have started defining some simple REST web services to handle this information.

Other emerging standards may also be of great relevance, in particular ePub version 3 which looks likely to become a popular standard for delivering textbooks to multiple different types of digital reading system. EPub 3 is built on an XHTML representation of HTML 5, and so is very compatible with a web delivered platform.

Our structure
The structure of our modular VLE consists of a front-end application which communicates with the central information management system to acquire enrolment information, and which broadly resembles the course structure areas of Moodle. Links from this application use LTI (with optional extensions) to provide a single sign-on into separate course delivery applications. While our system has its own specific lightweight course delivery application, Moodle could also be used. The course delivery application is able to directly provide a basic overview of the course and also static web page content. All more interactive features such as forums, wikis and quizzes are delivered through separate LTI applications. again with optional extensions to a greater appearance of integration. In the current prototype the course page is a fairly static page, not unlike that in Moodle, however we are also considering an option of a main course page which is modelled more on a Facebook group page. As well as using LTI to link to external modules, we are exploring the use of widgets to provide more personal tools such as bookmarking, personalised dictionaries, or optional facilities such as feeds from discussion forums.

Custom extra parameters for LTI
The main original use case of LTI was to provide a way for publisher hosted content to be securely accessed from university VLEs with the minimum necessary information being passed to the external publisher. The standard LTI parameters include information about the context of the launch, a context specific user identifier, and information about the user roles (such as learner or instructor). LTI makes no guarantee that the user identifier identifies the same user in different contexts, and more user specific information (such as name and e-mail address) are optional parameters that can be passed to more trusted tools.

In our distributed VLE vision we will sometimes require more detailed information about the user, and would also like to support other features such as common page templates and stylesheets to provide a coherent user interface, and breadcrumb trails to provide navigation. For this reason we are in the process of defining a set of extension parameters to LTI which will allow a tool to appear to be a more integrated part of the system. However, it is important to note that these will be optional parameters, and standard LTI tools will also work with our system.

Our extension parameters will include:
A parameter containing a URL for the tool to retrieve activity settings.
URLs for an HTML template and CSS to allow tools to follow the main course page appearance.
An organisational level user ID, which can be used for reporting back to a central gradebook for example.
A breadcrumb trail, allowing the user to navigate back.
Personal settings, which may include accessibility information and links to private bookmarks or notes.
LTI is an evolving specification, and if any of our extensions are duplicated by new features of LTI the extension will be deprecated with the standard feature replacing it.
Distributed Modular VLE Deployment Diagram

Benefits
There are a number of benefits that our modular approach to VLE provision will be able to deliver:

The use of LTI, which is a lightweight standards based protocol, means that it is easy to add interfaces to external tools. Our design allows for the best external tools to be utilised where needed.

The VLE becomes a collection of small extremely orthogonal modules that can be maintained individually, simplifying development and allowing greater flexibility. Modules can be written in different languages and deployed on different platforms - our prototype’s course module is a LAMP (Linux/Apache/MySQL/PHP) application, while the assessment module is a Java/Tomcat application.

Where teachers have different preferences, or subject areas have different requirements, it is possible to use completely separate modules that fit with particular needs.

The system is extremely scalable as it is built on a collection of small servers (like Google) rather than a single large server. As capacity requirements grow extra low-cost servers can be added to share the load. Where the extra capacity requirement is temporary, or appears rapidly, it is possible to make use of virtual Cloud servers from Amazon or Microsoft Azure on a pay by the hour basis.

Because the system is built on large numbers of small machines, and single large purchases are not required, planning can take place over shorter timescales.

Being a highly modular system based on publicly available standards, and designed to be a collection of small open source projects rather than a single large open source project, there is very little risk of getting trapped in a vendor tie-in situation.

The modular approach simplifies management of users’ roles, which in turn reduces processing overhead. This means that our system is likely to be usable for MOOCs as well as for replacing a conventional VLE.

The future
Our prototype, which we have named Orinthia⁴¹, is still a proof of concept piece of software. Some aspects of the code will need change before widespread use, however we believe the core design is solid. The current LTI implementation is LTI 1.1 with extensions, however LTI 2.0 is likely to slightly reduce the need for extensions so will be adopted soon. Our main components have been designed using a ‘Product Family Engineering’ approach, where a combination of shared libraries and generated code I used to create related applications, and we expect this will be the approach taken to create other modules designed specifically for the system. These modules that make use of our customer LTI extensions will be known as ‘Orinthia modules’. They should also be able to work with any other LTI enabled system, but will have a more integrated appearance when used with Orinthia.

References

⁴¹ Orinthia is a name coined by George Bernard Shaw, who also coined the word Moodle - "intr. To dawdle aimlessly; to idle time away. Also with about, on." (OED)
Empowering staff internationally: professional development in Learning and Teaching for global Approved Learning Partners

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Abstract: This paper discusses the preliminary findings of a pilot project evaluation study lasting six months from March to August 2013. The study sought to obtain a detailed description of the institution's globally placed Approved Learning Partners' (ALP) developmental needs in the area of learning and teaching. These ALPs deliver the university's programmes remotely, with all summative assessment done at the institution. The study aimed to establish a recommended syllabus for their academic development. The pilot evaluation phase of this new teaching support programme, provisionally called "GlobALPD" (ALP Professional Development in Learning & Teaching) had been planned to commence in January 2013, but was delayed to March 2013. Two test tutor groups from two different institutions in Russia enrolled in March and April respectively, and by the time of this paper (June 2013) evaluation data from the first group has been analysed, with the second group not being taken into consideration. The evaluation is ongoing with the final questionnaires being delivered to the first group by the end of June. The findings from this paper will support institutions across the sector with similar needs of providing developmental activities to international partners or campuses.

1 Introduction

The author developed an online educational development programme (GlobALPD) on the university's Virtual Learning Environment (VLE) for its Approved Learning Partners (ALPs). ALPs deliver undergraduate and postgraduate courses globally to more than ten-thousand students and comprise over forty overseas learning institutions in thirty-five countries.

The aim of GlobALPD is for ALP partners to:
- adopt a theory and practice-informed approach to teaching and learning in line with the university's community
- add depth and understanding to their educational practice
- be better informed about a range of educational ideas and how these relate to practice
- engage with professional development opportunities in Learning and Teaching

GlobALPD is designed for independent distance learning with online learning activities on the VLE, as well as virtual classroom group tutorials, workshops and Microteach session.

1.2 Background

The development of GlobALPD was driven by a combination of external and internal factors: the QAA Scotland highlighted the need for increased developmental activities for the institution's network of ALPs, to continue ensuring the high quality student learning experience
several partner institutions requested academic development opportunities
requirements arose from the institution's Learning & Teaching Strategy (current and in-development).

2 Design and Key Educational Concepts
GlobALPD, as an educational development provision, incorporates key concepts which frame the curriculum of Higher Education Teaching and Learning courses in the UK, Australia and NZ (Kandelbinder & Peseta, 2009). These five main concepts are:

Reflective practice
Constructive alignment
Student approaches to learning
Scholarship of teaching (at the core of GlobALPD)
Assessment-driven learning

It is also aligned with level one descriptor (D1) of the Higher Education Academy's (HEA) UK Professional Standards Framework (UKPSF) for teaching and supporting learning in higher education (2011)42.

GlobALPD’s online learning design and philosophy is based on the constructive perspective (social focus), where learning is seen as achieving understanding (learners actively construct new ideas through collaborative activities and/or dialogue) by being required to work together and to reflect (Mayes and de Freitas, 2004). According to these principles of the constructive perspective, in which “learners are no longer seen as passive recipients of knowledge and skills but as active participants in the learning process” (Beetham & Sharpe, 2007, p 2), GlobALPD was designed on the institution’s VLE as an interactive environment for knowledge-building, and also uses Skype as a virtual classroom. It incorporates activities that encourage collaboration and shared expression of ideas, with opportunities for reflection, peer- and teacher feedback.

2.1 Content

In the pilot, GlobALPD is separated into two learning modules, each covering six learning units, with a duration of one week per unit. An online group Microteach Skype activity takes place after the end of the first learning module, in week seven.

While the right choice of educational concepts was of substantial significance for deciding on the content, the importance of opening a dialogue with participants, rather than prescribing techniques and approaches lie at the heart of GlobALPD. As Sadler (2012) found during the investigation and description of challenges that teachers faced when adopting student-centred approaches to learning, the challenges of change and implementation have to be transparent to be addressed within educational development opportunities.

Learning Module one covers the Kandelbinder & Peseta (2009) key concepts one and three (Reflective practice, Student approaches to learning), with a practical focus on interactive teaching methods in a variety of classroom situations. Learning Module two covers the key concepts two and five (Constructive alignment, Assessment-driven learning), with particular support for formative assessment and feedback. Initial content of the learning modules changed after early feedback from test tutor group one. These changes are discussed in the Findings section of this paper.

Original Learning Module one - Effective Teaching and Supporting Student Learning
What is learning and teaching?
The reflective practitioner
Lecturing and teaching large groups: Facilitating active learning
Learning in small groups: Facilitating group work
Intercultural aspects of learning and teaching

2.2 Learning Design

Conole (2008, p 188) stated that "learning design refers to the range of activities associated with creating a learning activity and crucially provides a means of describing learning activities." Consequently, each of the learning units is prefaced with intended learning outcomes, and each contains a core learning activity, which "can helpfully be defined as a specific interaction of learner(s) with other(s) using specific tools and resources, orientated towards specific outcomes." Beetham (2007, p 28).

Laurillard (2002) determined four main aspects of the teaching-learning process, and this framework offers practical guidance for the design of educational environments. Within the framework, different forms of communication and associated activities are considered:
- Discussion - between the teacher and the learner (mutually accessible conceptions)
- Adaptation - of the learners actions and of the teacher’s constructed environment (mutual adaption to existing conceptions)
- Interaction - between the learner and the environment defined by the teacher (feedback on activities that are situated in appropriate environment)
- Reflection - of the learner’s performance by both teacher and learner

These communication and activity forms have to be included within the four main pedagogic components of Teacher's concepts, Teacher's constructed learning environment, Student's concepts, Student's specific actions (related to learning tasks).

With the conversational framework at the core of GlobALPD's learning design, each of the 12 units was set up the same way, and engagement with the first four areas is crucial:
- Learning Outcomes and short introduction/overview
- Learning materials, which guide participants through the key topics
- Key reading, which is the one important reading for each unit
- Activity which is related to the unit and contains reflective elements
- Additional external resources, such as further reading, links to websites
- Additional multimedia resources, such as video, audio or slideshows
One of the aims of the pilot evaluation study was to investigate the coherence between the four main components.

3 Evaluation Methodology

The main focus of the qualitative evaluation, which investigates the suitability of the proposed key concepts, is based on Brookfield's Four Critical Lenses framework (1995). For Brookfield, the most effective evaluation of any teaching situation was through critical reflection, enhanced through access to a variety of viewpoints. He proposed four lenses: self-reflection, student feedback, peer feedback, and engagement with scholarly literature. Using these four lenses in the evaluation of the GlobALPD Pilot Project lead to:

Self Lens: Critical reflection on the author's own experience, finding strengths and weaknesses. For example: Critical Incidence Analysis, Reflective Log.
Student Lens: Gathering feedback from the two groups of ALP test tutors, thus gaining valuable insight into the effectiveness and affordances of GlobALPD.
For example: online questionnaires, follow-up semi-structured Skype interviews.
Peer Lens: Colleagues can provide insights and solutions that the self lens might have been blind to. For example: feedback from colleagues from within the author's own unit, feedback from the local ALP contact/co-ordinator.
Literature Lens: Educational theory provides the contextual factors that form the basis of teaching and learning, and thus the design and content of GlobALPD.

3.1 Data Collection

In collaboration with one of the Schools of the University, a group of seven test tutors from a Russian technical university in Moscow was identified. The evaluation project accepted that the small sample size from only one country would invariably result in a bias, and would not be representative for the whole range of international ALPs. However, useful qualitative feedback and in-depth insights into the suitability of the proposed content were expected.

After ethics approval for the project had been obtained, the ALP test tutors consented to the research participation and agreed to engage with the evaluation of the pilot, which involved:
An initial self-confidence survey which consists of twelve questions and uses a Likert Scale (based on Angelo, TA and Cross, KP, 1993)
A critical incident questionnaire (CIQ) after each of the twelve learning units, which consists of four open questions (based on Brookfield, 1995, and Keefer, 2009)
A final self-confidence survey which consists of twelve questions and uses a Likert Scale (based on Angelo, TA and Cross, KP, 1993)
A final end-of-pilot questionnaire, with consists of a combination of thirty questions, using a sliding scale, and three open questions
Potentially semi-structured Skype follow-up interview

3.1.1 Critical Incident Questionnaire

To gather feedback for the main focus of the evaluation through the student lens, Brookfield's (1995) critical incident questionnaire (CIQ) was employed after each learning unit. The CIQ was adjusted for the purpose of this online project, using a combination of Brookfield's first two original questions and Keefer's (2009) last two adapted questions. The CIQs are delivered online, using the Bristol Online Survey tool.

Brookfield's original CIQ asked learners in five questions after each teaching session to describe their response. This was designed to help them reflect on what was helping or hindering their learning so far. Keefer (2009) presented adaptations to the CIQ, and Phelan (2012) investigated the successful use of the CIQ in online education. The author reduced the original five questions to four, aiming to elicit responses regarding issues of engagement
with the educational concepts and the GlobALPD learning design. The CIQ for the
evaluation, delivered to test tutors after each unit, was finalised as:
At what moment during this unit did you feel most engaged with the subject matter?
(Brookfield)
At what moment during this unit did you feel most distanced from the subject matter?
(Brookfield)
What was the most important information you learned during this unit? (Keefer)
Do you have any questions or suggestions about this unit? (Keefer)

4 Findings

4.1 Self Lens

Keeping a reflective log throughout the duration of the pilot project showed that the author's
perception of learner engagement and usefulness of activities and resources usually
coincided with perceptions and feedback from the test tutors. For example, realisation that
the first learning unit of the original learning module one 'What is Learning and Teaching'
contained too much information and an overwhelming amount of resources. This was
mirrored by CIQ comments such as: "I think this Unit contains a lot of information and it
should be shorten and concentrate according to requests of necessity" and "the information
for reading is very interesting, but it too much for one week if the student can't spend all
days for reading because of the work."

4.1.2 Student Lens

Feedback from the first group of ALP test tutors offered valuable insight into motivation for
participation, the suitability of the learning design, activities, and content resources.

4.1.2.1 Critical Incident Questionnaires

Respondents felt that they were most engaged with the subject matter throughout the units,
when they could apply theory to their practice: "Conference video was interesting and
engaging. I liked this article: Psychology Teaching Guide: Working with Small Groups.
Higher Education Academy. It's clear and useful." Participating actively also rated highly:
"When I read the information and was trying it on myself and when I was choosing which
scheme I like more."

Resources that were not obviously and immediately applicable to their practice, caused
respondents to be engaged the least. The test tutors were vocal if they felt that publications
were not well written in their opinions, which included some eminent education authors:
"Well, I didn't find the chapter from Ramsden's book inspiring, it takes the author too long to
tell the simple matters, and he permanently re-tells the same things in the book." Responses
also showed that several of the units which were less practically orientated, were not as
successful: "For some reason nothing remained in the brain after reading the module
'Contextual approaches to learning'." Also, English itself was occasionally seen as a barrier:
"It was difficult to understand key article. Probably because of my knowledge of English."

Looking at what was considered to be the most important information from each unit, it
became obvious how much practical applicability and an immediate positive reward were
ranked highest: "I think I got good tips for my future teaching", and a specific "PPT rules.
And also tips for lecturing well (dividing the lecture into 10min fragments, giving in-place
quizzes et al)," and "I think I got useful prescription for feedback practice. For example
Minute Paper by T. Angelo is a very good recipe." Respondents felt inspired to make
immediate changes and additions to their professional practice: "I have learned about
strategy of self-reflection and self-analysis. For example it is a good idea to start teaching journal. I am going to do it."

In the fourth question, which asked for suggestions for each unit, respondents requested more practical resources: "I think it is necessary to include more practical examples." Despite each unit containing a collaborative activity, respondents wanted further activities and engagement: "The unit organization is ok, although a shared activity would be nice to engage discussions and talks in the forum."

4.1.3 Peer Lens
The academic member of staff from the School that provided the ALP contact not only gave valuable feedback, but also engaged with some of the activities such as posting on the discussion board and sharing their own experiences, as well as joining the first Skype tutorial and the Microteach session. This proved to be stimulating for the learners, who had access to a colleague at the university who was part of their discipline. The peer feedback on the initial learning design praised the richness of material and the structure of the learning units and suggested improvements which resulted from their work with the ALP tutors. In fact, this early feedback mirrored later findings which saw video presentations and face-to-face Skype activities being considered as the most useful opportunities for learning.

4.1.4 Literature Lens
Educational theory provided the framework for the design and content of GlobALPD, and is discussed in the section ‘Design and Key Educational Concepts’.

4.2 Discussion
It has become evident from this evaluation of the pilot project that the acquisition of new teaching strategies was the main motivator for test tutors. This was followed by engagement with new and different concepts, while challenging existing ones, such as supporting students with special needs: "It is important topic and I learned useful information for everyday life. Unfortunately, in our country little attention is paid to the people with disabilities. It is necessary to raise this topic and then maybe situation will be changed."

The findings from the CIQs led to the realisation that the motivation for undertaking this development opportunity were subtly but significantly different to those of academic staff enrolled in accredited courses. GlobALPD at this stage is non-credit bearing, and motivation is focused on immediate gain and possibility for changes to teaching practices.

Reflective activities such as an early SWOT analysis and a Teaching Philosophy were seen as useful (Boud & Walker, 1998; Larrivee, 2010) but as test tutors mentioned in the CIQs, they did not feel that these activities were sufficiently linked to content and collaboration. As Wang (2009) found: "This study has confirmed that social activities must be seamlessly integrated into a learning environment." Further work and reflection by the author is required to ensure that reflection will be met with reaction (Hickson, 2011).

5 Conclusion
The evaluation of the pilot project has shown that the key concepts in higher education teaching and learning academic staff development are suitable for staff at Approved Learning Partners teaching the university programmes internationally.

However, further findings have raised the need to re-focus on the motivation (and consequently emotion) of ALP tutors (Trigwell, Ellis & Han, 2012; Postareff & Lindblom-Ylänne, 2011) in taking part in this developmental opportunity. Authors such as Efklides &
Petkaki (2005) and Pekrun (2005) suggested that mood and emotions are essential for generating interest and motivation for learning, while Wosnitza & Volet (2005) show that emotions in online learning are identical to emotions in face-to-face learning situations, from which follows the necessity for a renewed focus on the purpose of GlobALPD and consequently its learning design and delivery. This re-focus should improve the alignment of learner expectations regarding activities and resources, with the significance of practical implementation and applied theory at the centre.

6 Recommendations

6.1 Learning Design

Redesign from two learning modules with six learning units each, into two core modules with three learning units each and an additional advanced learning module, which features more in-depth theory. Feedback from the pilot evaluation has shown that motivation to learn focused on practical application and all theory needed to be applied. Furthermore, it is necessary to ensure clear guidance and signposting through the units, which are restricted to key content, to be explored further in each unit's activity. As one test tutor put it: "I like this unit. It was full of useful information. The unit wasn't overload with information and there were only essence of the matter." This could be summed up as: restrain and reduce, focus and guide.

The author recommends to drop the learning unit on intercultural aspects of learning and teaching, because it was found to be less helpful for tutors who are placed internationally, teaching a Scottish degree programme while within their own culture. This area is to be investigated in the future, when further ALP tutors are available for comment from a variety of countries and educational backgrounds.

While topics such as contextual approaches to learning were considered to be too complex and challenging to be studied within the core learning module, and outside of the immediate motivation of wanting to learn to enhance teaching practice, it is suggested that areas with low confidence such as "Helping students connect new information to their prior knowledge" and "Helping students recognize and unlearn mis- and pre-conceptions" could be enhanced by an advanced learning module with the concept of transformative and troublesome knowledge of Threshold Concepts (Meyer & Land, 2003, 2005, 2006) as its framework.

6.2 Content and Structure

The proposed new content and structure, with capstone virtual session at start and finish:

Core Module One
What is learning and teaching?
An introductory unit that familiarises participants with approaches to learning and teaching, including learning styles
Lecturing and teaching large groups: Facilitating active learning
Explores techniques for helping students learn: including questioning, delivery and use of resources, and interactive teaching/lecturing
Learning in small groups: Facilitating group work
Explores the process, management and benefits of working with groups for in-class tasks, including group dynamic
Synchronous Activity
Microteach using Skype (or alternative virtual classroom)
Core Module two
The reflective practitioner (addition from phase one: evaluating teaching)
Explores the benefits of reflection as a marker of the teaching professional, and introduces peer observation/dialogue models
Assessing student learning
An introductory unit that investigates the purposes of assessment, and explains how assessment supports learning
Giving constructive formative feedback
Examines the diversity and variety of feedback, its importance for student learning, and the value of student engagement with feedback
Synchronous Activity
Assessment and Feedback ladder activity workshop using Skype (or alternative virtual classroom)
Advanced Module
Theory of learning and teaching
Explores the underlying principles of learning, which guide the way we should be teaching
Introduction to constructive alignment
Explains the principle of constructive alignment in curriculum design: the alignment of learning outcomes, teaching-learning activities and assessment
Supporting students further: 1-Accessibility and 2-Academic Integrity
Offers a new look at 1-how to make learning more accessible for everyone and 2-good practice to avoid plagiarism.

6.3 Resources

Key reading to be applied and embedded within disciplinary practice, such as publications from former Higher Education Academy (HEA) subject centres, which received the highest feedback. All resources to be open access, removing any potential subscription barriers.

Links to Slideshare presentations were considered to be less useful, with disengagement reported in the CIQs such as “I think PowerPoint presentations aren't useful without video or audio.” The opposite is true for narrated PowerPoint screencast videos: “All unit is very interesting. There are a lot of useful recommendations. Videos are brilliant!”

The recommendation is to create narrated PowerPoint videos for all learning units, initially as introductions to the topics, followed by an increasing range of short active video presentations similar to those of the successful Khan Academy43 (www.khanacademy.org).

6.4 Activities

Create additional opportunities for active learning, with respondents asking for further collaborative activities to engage with concepts: “I want to discuss '7 things to think about' in the future.” Even if not all activities are taken up by every participant, it was felt that should they wish to, the chance to share and discuss would have been helpful.

Synchronous online activities such as the group Microteach and the virtual sessions, were seen as most useful. However, with the pilot project still ongoing, and a virtual workshop planned for the second half of June, data collection has not finished. While all signs point to the positive effect on learning, an end-of-pilot questionnaire, which will ask test tutors to reflect on the impact of activities, will not be provided before the end of June 2013.

6.5 Next Step

43 For a discussion of the Khan Academy style videos and their educational influence, refer to the keynote by Dr Lori Breslow (Massachusetts Institute of Technology, USA) on Tuesday 12 June 2013 at the QAA Enhancement and Innovation in Higher Education conference, Glasgow.
The author recommends a GlobALPD evaluation project phase two with ALPs from different countries, educational culture, and institutions. Phase two of the GlobALPD pilot aims to evaluate the recommended changes from phase one, and will focus on the impact of this educational development opportunity on the ALPs' professional practice.

This pilot evaluation study has found that the coherence between the four main components (Laurillard, 2002) of Teacher's concepts, Teacher's constructed learning environment, Student's concepts, and Student's specific actions (related to learning tasks) was not always aligned. Phase two would allow the detailed evaluation of changes made to the learning design, caused by the discussion of conceptions between teacher and learner, which resulted in the adaptation of the teacher's constructed environment according to the learners actions. This follows on from the alignment with and the challenging of conceptions, which was facilitated by interaction between the learner and the pilot project environment as well as the teacher. This had been informed by the reflection on the learner's performance by both teacher and learner, in addition to peer feedback and educational literature.

References


Efklides, A and Petkaki, C (2005) Effects of mood on students' metacognitive experiences, Learning and Instruction, 15, pp 415-431


Larrivee, B (2000) Transforming Teaching Practice: Becoming the critically reflective teacher, Reflective Practice: International and Multidisciplinary Perspectives, 1:3, pp 293-307

Marton, F, Hounsell, D and Entwistle, N, (eds.) *The Experience of Learning: Implications for teaching and studying in higher education*, 3rd (Internet) ed, Edinburgh: University of Edinburgh, Centre for Teaching, Learning and Assessment


Pekrun, R (2005) *Progress and open problems in educational emotion research*, Learning and Instruction, 15, pp 497-506

Phelan, S (2012) Interrogating students' perceptions of their online learning experiences with Brookfield's critical incident questionnaire, *Distance Education*, 33:1, pp 31-44


New Technologies, The Curriculum and Higher Order Skills

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ABSTRACT: Recent work highlights the difficulties that academic staff face in applying new technologies to higher order assessment outcomes such as critical thinking, problem solving and creativity. They note that although higher education institutional mission statements and unit outlines purport the value of these higher order skills, often aligned with graduate attributes, there is still some question about how well academics are equipped to design curricula and, in particular, assessment strategies accordingly. Despite a rhetoric avowing the benefits of these higher order skills, it has been suggested that academics set assessment tasks up in such a way as to inadvertently lead students on the path towards lower order outcomes.

This is a controversial claim, and one that this papers seeks to explore and critique in terms of challenging the conceptual basis of assessing higher order skills through new technologies. It is argued that the use of digital media in higher education is leading to a focus on students' ability to use and manipulate these products as an index of their flexibility and adaptability to the demands of the knowledge economy. This focus mirrors market flexibility and encourages programmes and units of study to be rhetorically packaged as such. Curricular content has become a means to procure more or less elaborate aggregates of attributes. Particularly in light of the current worldwide economic situation, higher education is now charged with producing graduates who are entrepreneurial and creative in order to drive forward economic recovery. Learning in a slower deliberative fashion, once considered as the path to independent learning, is being displaced by a focus on making connections between different kinds of knowledge.

Despite this zeitgeist, it is argued that critical independent learning can take place through the democratisation afforded by cultural and knowledge digitization. In other words, it is suggested that far from letting this process move beyond students' ability to analyse it, higher education should instead work from within digital culture in terms of engaging with the changing relations between audience and author, expert and amateur, and creator and consumer.

1 Introduction

This essay focuses upon the assessment of higher order skills in the context of wider pedagogical discussion and debate surrounding the expanding use of new technologies in higher education. It poses questions about the pedagogical value of these technologies in terms of their utility in addressing curricular reform as a means of developing higher order skills such as problem-solving, critical thinking and creativity (Bath et al. 2004; Winchester-Seeto et al. 2011). Within the literature these skills are considered as fundamental to the 'higher' nature of higher education and have been associated with graduate attributes (Barrie, 2006; Moore, 2004). Graduates are expected to be able to make connections between what they have learned and various academic and professional practices and between their knowledge and its creative application to new or ill-defined problems (Boud & Falchikov, 2006). Furthermore, these skills in critical analysis and problem-solving are also increasingly being related to graduates' ability to think and act as citizens in an increasingly globalised world where the pace of technological and associated change in the world of work requires flexibility in ways of operating never before. However, whilst these higher order skills are recognised as crucial to the development of modern graduates, integrating them into curricula and their associated assessment strategies has proved to be more controversial and challenging. This is particularly evident with respect to the new
technologies as tools that can support the development and demonstration of these skills. Some of the key arguments that surround these issues are developed in the following sections.

2 New technologies and the problem of higher order skills

Assessment is fundamental to the ways in which students engage with curriculum. The kinds of assessment tasks that are set, their role in shaping how much time students spend on various associated activities, and their importance for progression and course completion all testify to the significance of assessment within the student experience (Brown and Knight 1994; Ramsden, 1992; Rust 2002). The nature of assessment within higher education sends out a message to students about what they are expected to achieve in terms of being able to demonstrate the kinds of skills that mark out a graduate (Brown 1997). In other words, assessment is a key component of what constitutes the higher nature of higher education. For example, there is a qualitative difference between the kind of skills involved in critical analysis that are expected of a secondary school pupil tackling a history essay and those of a third year undergraduate who is also doing an essay on what may well the same or similar topic. The difference cannot be simply expressed in terms of an index of difficulty associated with the curricular content but in the way that students are expected to engage with this content. In other words, the practice of critical thinking within higher education is expected to be qualitatively different from what would count as critical thinking in secondary school education. This may come down to the ways in which arguments are counterposed against each other or challenged, familiarity with and use of original sources, and originality of argument. This is just one example of how higher order within higher education are demonstrable through assessment.

However, whilst these kind skills are considered important for many courses, there is also a recognition that students require a portfolio of these skills as part of what are now know as graduate attributes, and as part of a wider recognition of the need for metacognition and lifelong learning (Boud and Falchikov, 2005; Falchikov and Thompson 2008). An over-reliance on essay-type assessments and unseen examinations has been questioned in light of the need to develop a fuller range of higher order skills to meet the needs of modern society (Falchikov and Thompson, 2008). Indeed some of gone so far as to suggest that the gap between the intentions of lecturing staff and the reliance on assessment strategies that focus on the reproduction of knowledge rather than its manipulation or transformation, raises the question of whether higher order learning is in fact being assessed (Arum and Roska, 2010). This is considered all the more pressing in light of the uptake of new technologies for the purposes of assessment. A decade ago Northcote (2003) suggested that academics' views on the role of assessment in learning and teaching influenced their choice of online learning assessment tasks and despite the affordances of new technologies "online assessment has remained predominately summative" (p.68). Coming forward to almost the present day and McNeil, Gosper and Xu (2012) in a study of academics at an Australian university found that despite intentions of higher order learning outcomes for students, there was a tendency to use online tools such as quizzes to assess recognition and understanding. There were examples of respondents using wiki, blogs and online portfolios to assess higher order outcomes such as metacognition, creativity and evaluation. However, the relatively low uptake of these tools suggested to the authors a tendency to avoid using them as a means of engaging higher order learning. McNeil et al. conclude that their study emphasises the importance of academic development work, for example through online and on-campus workshops, to aid academics in integrating new technologies in their curriculum and assessment design.

Whilst the uptake of new technologies to assess higher order learning skills and outcomes may well be problematic, at least in some institutions, the opportunities to support the
design, delivery and administration of diagnostic formative and summative assessment have been attested to in the literature. In particular, a new assessment paradigm that involves a transformational approach to computer-based assessment whereby the integration of students’ performance over time is monitored as well as the integration of assessment with teaching (Bennett, 2010). The extent to which such an approach can evaluate the higher order skills is open to question but other approaches such as immersive environments and games are being used to assess such skills as problem-solving, collaboration and inquiry (See Dede, 2010; de Jong, 2010; Means & Rochelle, 2010). It has recently been suggested that electronic assessment is at a critical juncture between the 'old' testing paradigm where the linkage between pedagogy and technology is mostly one-directional, and the 'new' paradigm of a two-way 'dialogue' between new e-assessment technologies and pedagogy (Redecker & Johannessen, 2013). However, whilst these new technology assessments can inform pedagogy and vice versa the learning outcomes are framed in terms of "competences need for life in the 21st century" (Redecker & Johannessen, 2013, p. 91). Such claims seem to be framed in instrumentalist and functional terms rather than connect with learning that promotes higher order learning outcomes. This issue of the problematic nature of the promotion of new technologies in relation to assessment is developed in the next section.

3 Higher order skills and the problem of new technologies

Assessment practice has become a central topic higher education due to a changing emphasis on student engagement with higher order learning outcomes that reflect 'new' literacy skills in response to changing methods of accessing information and communicating brought about by new technologies, globalization and changing workplace needs (Johnson and Kress, 2003). Thus the higher order skills of critical thinking, problem-solving and creativity have become inter-twined with other generic high level skills such as information literacy, superior communication ability, and team working. These skills are driven by the changing pace of new technologies and communication mediums, and although they are not always explicitly taught, do form a major part of the student experience and are often assessed implicitly within the courses that students undertake.

However, whilst these kind of generic information literacy and communication skills are important, it may be the case for some at least, that they have become the 'tail wagging the dog', so to speak. Thus whilst learning technologists have been keen to stress the benefits of new technologies, the have formulated these within an overarching discourse of digital literacies (Beetham et al. 2009). However, this recasting of higher order learning outcomes leaves wider concerns with academic and textual literacies behind and strips the these outcomes of their association with disciplinary knowledge and instead promotes a competency-based agenda (Lea, 2013). This has resulted in the term 'digital literacies' in higher education being associated with more instrumental purposes such as producing graduates that are 'fit for purpose', that is that have a range of transferable skills and competencies that can be applied to lifelong learning and the world of work. Those who are enthusiastic about promoting learning technologies in this way tend to base their arguments upon: (i) the need for higher education to respond to a generation of students who are familiar with these technologies (e.g. wikis, blogs, social media, twitter etc.) so that they are aligned with practices in higher education, including assessment practices, and (ii) that educators need to develop their own skills in utilising these new digital technologies to enhance and improve their teaching and learning strategies and practices.

The wider implication of this conceptualization of digital literacy is that it extends beyond higher education to digital society, as something that higher education must engage with itself if it is to adapt to a changing world. This view of literacy presents an 'impact model' in which new digital technologies impact upon higher education which in turn must produce students who can use these technologies to make an impact upon themselves and the their
world. It is an autonomous conceptualization of literacy as if it were a stand-alone facet of learning, as something concerned with technical skills and proficiencies including cognitive skills. What this view does not engage with is the ways in which literacy is bound up with practices of knowledge making and representation and power. It is of course that latter than many academic would argue are the very things that students should be engaging with in a reflexive manner within higher education and that these constitute higher order learning and skills within disciplinary and inter-disciplinary contexts.

Lea (2013) also makes the point that higher education is often presented by enthusiast for new learning technologies as conservative and slow to change. In other words, teaching staff are viewed as requiring more training through workshops and the like to engage with these new technologies so they can see the benefits of them for their pedagogical practice, include as noted above, assessment practices. This presents staff as being deficient in their pedagogic knowledge and practice, which they need to keep up with the pace of modern technology. Moreover, it also promotes the idea that teaching staff need to adapt to their learners as competent professionals. This discourse marginalises the role of teachers and places them in the position of ‘playing catch up’ with the technology. In this way it is not only that curriculum and assessment that required to be aligned but also that teaching staff need to be aligned with the requirements of new technologies.

Brabazon (2007) argues that being a student in today’s world of higher education is like living in someone else’s iPod given the need for permanent reskilling. This is considered as necessary in order to mirror market flexibility and produce graduates whose programmes of study develop the skills associated with such a requirement for flexibility. It is claimed subject content has become a means to procure more or less elaborate competencies, and as a result, graduates are considered as no more than aggregates of attributes. (Brabazon, 2007, p. 163) argues that: “The transference from a manufacturing to an information-driven economy necessitates permanent reskilling [and that] the cost of labour market flexibility is educational standards and scholarly excellence.” The danger here for higher education is that student learning is reduced to solely being an index of employability. It is easy to understand why this is the case given the present economic climate but it is arguable that higher order skills should be considered something more than simply developing the student into a ‘future worker’. The capabilities of new technologies and new forms of assessment can still be utilised alongside ‘old’ technologies in such a way that we ensure that scholarship, critical thinking and creativity are the drivers of higher education. The next section explores the practices associated with the development of higher order skills.

4 Higher order skills and practices

Slow learning through reading has in some instances given way to instant access, to snippets of ‘information’ that are downloaded for specific instrumental purposes such as assessments that test for specific and sometimes narrowly defined learning outcomes. This can be thought of as analogous to the way in which popular music is now downloadable in terms of specific songs. It is now easy to personalise your own choice of songs and download them at relatively little cost. Meanwhile, the idea of buying an album as a coherent body of work by an artist is to some extent on the wane. Likewise, students now download academic material to garner specific bits of information rather than to gain depth of understanding through extended reading. This might seem a depressing state of affairs, and although perhaps exaggerated, higher education is arguably moving in the direction of elevating the agency of the student in terms the ways in which students select and download material. Such a learner-centred focus is not new and has been a feature of constructivist primary school education since the 1960s. Exploration, problem-solving and creativity are often associated with this form of learning and, in particular the focus on the agency of the learner.
This is now certainly the case in higher education. Take, for example, the practices involved in constructing wikis and blogs. These may take time and certainly can be said to involve creativity and teamwork. However, the focus on digital literacy perhaps at the expense of academic literacy means that these practices, as Lea (2013) argues, have come to dominate the agenda on nature of higher order learning outcomes and skills. Failure to engage in using these technologies, to link them to innovation in terms of curriculum development and assessment seems, on the face of it, to overemphasise a conservative view of teaching and learning as the reproduction of knowledge. However, this is perhaps an oversimplification of the position. Practices of assessment such as extended essays or unseen examinations may be justifiable and worthwhile but for different reasons that in the past. If these practices were preserved simply on the basis of tradition then this would indeed represent a straightforward conservatism. However, some practices may well be characterised as conservative but in fact provide a function that can be seen as valuable in today's world. For example, in a world where students can instantly access information at the flick of a finger it might be useful to counter this with slower forms of learning that require reading, re-reading and reflection. Information communication technology can do many things such as permit collaborative learning through working together on a wiki, or searching databases of information without having to spend weeks tracking down articles. However, whilst being accomplished in these practices may well constitute higher order skills they do not permit slower paced reflective learning which may be just as valuable. In other words just because we live in a fast paced world does not necessarily meant that students must learn to cope with the demands of that world and nothing else.

The point being made here is that what may seem like conservative practices can in fact provide a useful counterpoint to so-called innovative practices and may be just as transformative. The new pathways of information communication technologies have, and are, transforming the higher education landscape, particularly where library visits and reading book are being replaced by the retrieval of information from websites. A culture of 'fast knowledge' whilst useful in some contexts and subject areas, can be inhibiting in other contexts and subject areas. Likewise, as noted above there has been a rise in diagnostic assessment and instantaneous feedback. Again without wishing to come down in favour or against the use of such approaches, the main focus should be on the higher order skills which students acquire as part of their higher education experience. Whilst the growing use of information and communication technology has transformed the nature of learning for students such that they can now choose to engage at a distance at any time, this has also led to a shift in self-identity, from that of novice and student, to that of participant and consumer. As educational practices become more learner-centred and teachers become more resource providers and mentors then the change in relations between students and their teachers becomes itself more problematic. This is particularly the case in light of assessment where for the most part teachers are still the final judges of the quality of student learning.

Being able to access, select, evaluate, synthesize, and collaboratively transfer information between one another in an online environment is part of the array of higher order skills that require assessment. However, theses generic skills cannot be extracted from the subject areas and types of knowledge that students must work in, and with. Some practices are normative in this sense that the are a performative part of the know-how of how to get things done, what steps need to be taken and how these can be achieved in an efficient manner. This does not mean to say that they are fixed in that interpretation and adaptation are always a potential part of them. On the other hand, other practices that educators might wish students to engage in are more critical and directed at changing thinking, perceptions, values and the like. These practices often require reflection, careful thought, and develop over time in an unhurried fashion. Indeed they could be characterised as a state of mind that
is reflective of the spirit of lifelong learning. In both cases it is the student's relation to these practices that is of crucial importance.

5 Practicing higher order skills

Despite the changing landscape of higher education that new technologies have, in part, brought about, there still remains a core set of activities that constitute teaching, learning and assessment. Practices such as lectures, seminar discussions, coursework assignments, examinations, and so on, form the core activities of what staff and students are engaged in. Some of these practices are likely to be the subject of change and transformation over time or perhaps be replaced by new practices. However, the main point is that practices are activities that involve both continuity and change over time. It is the very fact that these practices involve complex interactions between learners, staff and curricular materials that make for a set of dynamics that makes change possible. There may be aspects of assessment practices that are more appropriate at certain stages than others, or fit learners' needs more readily or require updating in the light of new relations between staff, students and the curriculum. For example, it is often the case, as in any educational endeavor, that learners requires understanding certain fundamental aspects of a subject, discipline or practice before being able to engage in a critical evaluation of that knowledge or set of practices. In higher education, although learners typically join their courses with pre-requisite knowledge and skills these are usually not sufficient to engage in being able to critically engage with the new material that they learn. Thus, even at an advanced stage of learning there is an aspect of 'taking in' a fundamental knowledge base and set of principles that define what the subject or discipline is about. In some cases this may be familiar and lead on from school or further education learning but in other cases a whole new knowledge paradigm may be opened up to learners. In either case this early advanced education necessarily requires a degree of unquestioning acceptance in order to acquire this fundamental knowledge base. Indeed it is only through the acquisition of this knowledge that learners also acquire other kinds of tacit understanding about the nature of subjects and disciplines such as their epistemological paradigms. It is only after having acquired both this explicit and implicit knowledge that students can then go in the later stages of their programmes of study to learn to unpack their understandings and subject them to question, doubt and critique, and to appreciate the provisional status of knowledge. It is therefore integral to the learning process that higher order skills of critical analysis, problem-solving and creativity are necessarily built up from such 'unquestioned' knowledge. Therefore, learning in an unquestioning manner early on does not mean that unquestioning acceptance is being learned *tut court*. Teaching staff may well utilise Socratic methods of questioning with students throughout their higher education but this does not mean that such questioning is being used in the same way at each stage.

It is for the reasons outlined above that we should be thoughtful about *how* and *why* new technologies are used in assessment practices. Getting students to be creative early on in their programmes of study in for example, producing a blog or wiki, may serve the purpose of collaborative working and may make the experience engaging. However, the higher order outcomes of this practice will need to be carefully considered as it may help or hinder the acquisition of 'baseline' knowledge and principles and their initiation into the practices of a subject or discipline. That learning requires an initiation into practice is certainly the case but it also the case that as students' progress through their programmes of study that they develop in a relational way to their subject or discipline. This will at first be mostly about learning the 'craft' of the subject or discipline, or inter-discipline in terms of education about its methods and practices. However, later in their studies students can engage in higher order skills that evidence a critical or creative engagement. It is here that within their assessments student can be encouraged consider how practices are themselves developing via new information and communication technologies. This is one of the great advantages of
the sharing capacity of new technologies. The blurred relationship between consumption and production of wikis, social networks, blogs, etc. throws into relief questions about how subject and disciplines are developing through the information that is accumulated, posted, traded, and shared. This requires a self-reflexive relationship between students and their learning, or what was referred to earlier as metacognition. This is indeed a higher order skill and one in which higher education can attach to it the concept of merit by acknowledging a commitment to critical thinking that is beyond the image of performativity in relation to simply digital literacies. This critical and more reflective mode of practicing is rooted in an enactment of participating in practices of knowledge generation and exchange whilst also at the same time maintaining a 'distance' from these in terms of subjecting them to scrutiny, question and potential transformation.

6 Conclusion

Student learning is driven to large extent by assessment practices. As has long been recognized these practices need to be aligned with the curriculum in such a way that students develop the higher order skills that are deemed to be in line with the 'higher nature' of higher education. There are certainly many drivers of change in assessment, of which new technologies have come to play a major part. However, as this paper has argued educators need to be careful that the 'tail does not wag the dog', I the sense that these technologies are used without sufficiently careful thought about the pedagogical rationale behind them. It is not enough to simply make use of them on the basis of their face value in engaging students because these are the very technologies they are familiar with. Like all technologies, be it pen and paper or tablets and social networking platforms, they have multiple uses like tools in a toolbox.

There are a number of assumptions made about the higher order skills that are capable of being developed through assessments that utilise new technologies. These are often framed in terms of an aligned curriculum that a positions learner as active enquires. However, these assumptions are rarely tested but are grafted onto the rationales for making use of such technologies. In the case of collaborative exercises it may well be the case that learners are passively consuming information by reproducing information from online sources through cut-and-paste operations rather than engaging in a genuinely collective construction of a wiki. Thus what is superficially labeled as 'collaborative' learning may be nothing more than an exercise in co-operation or co-ordination (Selwyn, 2013, p.205). This kind of learning can be characterized as developing a competence rather than a higher order skill. Indeed as there is often more than not the assumption that learners freely engage with digital learning technologies in some independent and autonomous manner that underplays the role of formal teaching and learning.

It is not a case of either accepting or rejecting new technologies but of recognizing that the development of higher order skills is not rooted in the technology per se but rather in the kinds of skills that in practice students engage in and with. As Selwyn (2013, p.207) points out, there is often a tendency to discuss educational technology in terms of what should happen and what could happen through the introduction of new technologies. His point is that we should focus on the "state-of-the-actual' rather than the state-of-the-art". To this could be added that we should focus on the pedagogical state of both as we attempt to define what we mean by the development of higher order skills in higher education.

References


The potential of online academic communities: findings from a pilot study of the SocialLearn platform

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Abstract
The purpose of this paper is to offer some preliminary evaluation findings from a six month pilot that will explore the viability, usefulness and potential of the online platform SocialLearn in providing an academic community for social sciences tutors. The new SocialLearn platform developed by the Open University has the potential to combine both active learning and collaboration opportunities in a monitored environment. This paper firstly introduces the potential of online environments and the application of ‘communities of practice’. The methodology behind the evaluation is then outlined along with an introduction to the Open University SocialLearn platform. The findings from the focus groups that were conducted with the research group are then outlined to show both the potential of an online environment and the barriers to successful implementation. The paper concludes with a discussion of the key themes of privacy, usability and multi-level communications in understanding the process of creating a successful online academic environment.

Introduction
This presentation will offer some key findings from an evaluation of a six-month pilot exploring the viability, usefulness and potential of a virtual Open University platform called SocialLearn in building an academic community. For many users, social networking has become integrated into their daily activities as one of the most common ways of communicating virtually, through different platforms such as, Facebook, Twitter and forums but, as yet, none of these platforms have been able to provide both a dynamic and controlled learning platform. The networking potential of social media within HE is acknowledged within the Open University and this pilot aimed to assess its current potential.

A crucial aspect of the lecturer or tutor role is continuous professional development and reflection on good practice (Schon 1991). In the Open University social networking is used to facilitate collaborative practice amongst geographically disconnected individuals, such as the OU body of Associate Lecturers (module tutors). Over the years some Associate Lecturers (ALS) have commented that they can feel isolated from the University, at least in terms of feeling part of a vibrant academic community where they can participate in a culture of debate and argument. The geographical spread of tutors across the length and breadth of Scotland means that face to face participation in events such as workshops and seminars, as well as the opportunity to meet with colleagues, is not always possible or practical.

The pilot project aim is to gain some insights into the process and usefulness of creating virtual ‘communities of practice’ (Wenger, 1998). To enable evaluation, the pilot project focus is on building an academic community among OU Associate Lecturers: to foster a sense of an academic community amongst peers within the OU initially, and with other academics in different institutions within the UK and internationally. The pilot project includes a number of Social Science Associate Lecturers (ALS) in Scotland, who in October 2012 were invited to join and interact within a specially formed group called the ‘Social Sciences Academic Engagement Pilot Community’. The pilot project evaluation on the participants’ engagement with the ‘virtual community’ will be through workshops, focus groups and several surveys conducted throughout late 2012/early 2013. The key findings identified in the evaluation are intended to facilitate a discussion on the usefulness of social networking in enabling potential development of academic communities.

The potential of online environments
A learning community can be defined as "a body of individuals who use computer networks to share ideas, information, and insights about a given theme or topic to support the ongoing learning experiences of all the members" (Fontana 1997: 4). The potential of online learning
communities can foster creativity, help problem-solving, facilitate decision making and act as 'incubators' for social participation (Fontana 1997: 3). Collaboration is key to successful learning environments (Palloff and Pratt 2005) and social media platforms have great potential for collaborative learning and the 'social construction of meaning' (Palloff and Pratt 2007: 19). There is, therefore, potential to utilise online environments to build successful, social and collaborative communities.

This potential is seen to be mirrored in successful social media platforms such as Facebook, Twitter, LinkedIn as well as a wide and diverse range of discussion forums but, as yet, none of these platforms have been able to provide both a dynamic and controlled learning platform. There is also ongoing privacy and commercial considerations linked to social media platforms. The Open University have proposed an answer to this problem by offering staff and students the chance to interact on their new online platform SocialLearn. This is aimed to be a platform open only to those with an Open University web access password could access discussions. It also aims to let users share information and engage on both a social and educational level. For ALs there was also an element of professional development and the potential to share research and scholarship.

A controlled academic environment is very important as online concerns include issues in people developing their 'social presence' as they need to define themselves and engage emotionally. This can lead to performance anxiety on social media platforms (Palloff and Pratt 2007) and reluctance to engage. Non-engagement can lead to isolation, which can also affect how people engage with wider communities.

Open University Associate Lecturers are unique by teaching in generally isolated environments, at least in terms of face to face interaction. AL's have limited means of interacting formally with other peers in this regard. Furthermore, their students may also be geographically dispersed. The potential feelings of isolation led to the piloting of SocialLearn as a new online environment for Open University AL's. McInerney and Roberts (2004) show that combating isolation is one of the main factors for successful or unsuccessful online learning environments. The social elements of online learning communities are central to successful online communication. If a sense of 'self' is encouraged within the online environment, this assists the learning process by combating feelings of isolation.

The evaluation is intended to facilitate a discussion on the usefulness of social networking in enabling continuous professional and social development and the creation of an academic community.

Online social and learning platforms
An online learning community is an "emerging network and accompanying applications are powerful tools for teaching and learning, which place even greater responsibility on individuals" (Fontana 1997:3). This individual responsibility is important and linked to the establishment of self-within online environments as:

"The technology that makes virtual communities possible has the potential to bring enormous leverage to ordinary citizens at relatively low cost... But the technology will not in itself fulfil that potential, this latent technical power must be used intelligently and deliberately by an informed population" (H. Rheingold, in Fontana 1997: 1).

There is not much known about how this 'latent technical power' is really used or implemented. The literature suggests that although there is a lot of potential in online platforms, it is the users of that community that are central. In regards to this, a key aspect of the lecturer or tutor role is continuous professional development and reflection on good practice (Schon, 1991). SocialLearn was created as a potential route to facilitate this professional and social development in an online environment but also to enhance the sense of a shared academic community among a network of like minded peers.

SocialLearn is a new platform made by and run by the Open University and is still in its beta phase. On the website it states that it is a learning, sharing and social site for anyone who is interested in connecting with people. Users with an Open University password can use it to chat, share and discuss social issues, or collaborate with research and scholarship projects or even to have a debate around a particular social or political issue. SocialLearn has been
placed as a useful tool to share information and connect with like-minded people who all have an interest in learning and connecting whatever their background or academic status. SocialLearn is a hybrid of different media platforms. For example, you can build a profile such as on Facebook, follow people as with Twitter. There is the ability to post publically, only to your group, as well as privately with other users.

What is different about the platform is how it organises information, thoughts, events and so on under 'Collections'. Collections aim to hold all your thoughts, paths, events etc in a coherent way. You need to link your posts to a collection. When making a new collection users must modify permissions and make others a 'contributor'. Public collections could be seen in multiple 'communities' across the platform

A separate and private 'community' was created for the AL's involved in the pilot scheme. This was built by the research team to include both learning and social aspects of a social community (please see appendix A to see full layout of the community).

The SocialLearn platform was viewed as an opportunity to link existing networks to create peer communities. The aim has been to create an academic community using this on-line platform. This platform aimed to have both social and scholarship elements within it. This pilot project aims to assess the capacity of this type of interactive and social community.

Methodology

This evaluation has been conducted using a mixed method approach. The mixed methods can be shown as three phases. Phase 1 included an initial period of time on the formation of project goals and methods and an examination of supporting literature. The pilot sample of 55 Scottish social sciences AL’s was confirmed, drawn from across the undergraduate curriculum and from across Scotland. Furthermore, the SocialLearn community platform was created and populated by the research team in preparation for AL participation. The ‘Social Sciences Academic Engagement Pilot Community’ group has been is open to ALs since November 2012 and is designed to allow ALs to share ideas, experiences, knowledge and interesting thoughts, ideas and useful web and other links (for full visual please see appendix A). This has been the main ‘interface’ component of the project and has been monitored by the research team.

For phase 2 it was decided that the best way to maximise ALs participation was to utilise focus group methods. Two focus groups were conducted in November 2012 with two groups of DD101 Associate Lecturers (ALs) and several other interested parties (approx. 50 in total). The focus groups explored a range of issues including AL thoughts on and use of social media in general, potential barriers and AL participation on platforms such as SocialLearn. The focus group data was analysed on QSR Nvivo the qualitative software platform to explore cross-cutting themes.

Phase 3 of the pilot scheme is currently underway and includes generating viable quantitative results from both the online platform and a survey of the AL population. The survey was created to complement the findings from the focus groups conducted in phase 2.

The current analytics and engagement of the SocialLearn platform are outlined in appendix B. The results show that from the 55 members of the pilot group there are 17 active users (a take up of 31%). The 17 active users have created six collections, three events, four thoughts and 51 comments. This averages three comments per active user over the six month period. This paper now outlines the focus group findings and the learning points we have derived from the project so far.

Focus Group Findings - the possibilities linked to an online community

Overall, there was a general appetite for a social and learning community from the pilot group. At the time of the focus groups, the majority of ALs did not feel that they were part of a general AL community.
"you don't feel part of the professional community because you don't know the people" (Focus Group 2).
Although ALs felt some kind of disconnection, they did express a need and a want to connect to other tutors in some way. Many of the participants did engage with social media already. Facebook and LinkedIn were the most popular, with only about 4 people on Twitter. There was only 2 ALs (1 in each group) who said they wrote a blog (in focus group 2 there was confusion to what a blog was). About a third of participants tried not to engage with any social media in a significant way. However, all but 1 participant said they would be willing to try SocialLearn. This is a very important point in that there was a general willingness from the pilot group to try and build some type of AL academic and social community.
"I've been an AL a long time and an OU student a long time and isolation is a problem and the idea of being able to talk to a very particular group of people attracts me" (FG1)

"we've had our awareness raised about it, go on and try it out. I'm willing to get into this pilot I'm not a great one for social media but I'm absolutely willing to find time here and there to have a look at this and contribute and see where it goes" (FG2).
Importantly, SocialLearn was seen as having to go hand-in-hand with face-to-face communication. The group generally felt that online engagement must augment face-to-face social interaction that rather than replace it. ALs liked to idea of professional engagement and focused social communication.
There was a minority of ALs in the focus groups who were active champions of social media. They were quite vocal in advocating the use of social media for ALs on a personal level. Some of the potential of the platform was discussed as a tool for professional, social and learning development.
Some of the main advantages of using social media were seen to be around the area of personal development. ALs mentioned included publishing and advertising your own work, becoming more visible in your discipline, finding employment (1 AL mentioned she had got 3 job offers through LinkedIn) and managing your online reputation. It was clear that SocialLearn could be an arena to share research and scholarship interests in this way.
In focus group 2 there was a key theme of increasing the "voice" of ALs. Some ALs would also like more engagement with full time OU faculty staff, such as their line managers (in the OU these are Staff Tutors or Senior Faculty Managers) as well as those directly involved in curriculum and module development and a forum to share their views on particular courses. 
"I would agree and I think ALs need a voice. For example, students get a survey and give all their comments and give their feedback, now when do we ever really" (FG2).
For this to work there would need to be a high-level of engagement from the Open University in general. ALs mentioned that there has to be something there for them to see or they will get "fed up" with it.
The benefits of using social media also included key social interactions. For example it was seen as a medium to communicate with other ALs, arrange face-to-face 'meet-ups' and finding people with similar interests and engage on a social level. Overall it could "plug a gap in finding out what ALs are actually doing" (FG1) and "make people human" (FG2).
Furthermore, engaging with people on a day to day basis could be seen to help some participants feel less isolated.
Learning outcomes in relation to taught courses or general knowledge exchange were also perceived as a key area for development in the platform. One of the main benefits has been access to a "wealth of links". Specific links that were mentioned included events, conferences and funding bids etc. An example from the ALs on desired and useful context was the email announcement regarding the OU/BBC Why Poverty? TV series that was sent by the Staff Tutor before the focus groups. Many ALs found this helpful on many levels and it was brought up in both focus groups.
"The Why Poverty programme was on, on Monday night, that's the sort of thing I might have, if I was already in the groove of this thing, that's the sort of thing I might have gone on and said did anybody else see that, that was fantastic" (FG1).
Some ALs would like to share people's research interests and establish connections between ALs. Particularly on opportunities for research grants for example. There was also an element of linking people to useful information. ALs said they would be more inclined to use SocialLearn for professional outcomes linked to the content. Lectures, conferences and events were also popular potential topics as well as social events.

The above evidence shows there is a need for some kind of AL community and professional, social and learning opportunities were seen as possible outcomes. There were a number of interesting advantages expressed in regards to being engaged with such a community. There were questions, however, on participation and non-participation. This was set as a question of what type and level of participation was expected from ALs.

General mistrust of social media

Although many ALs involved in the discussions used social media in some way, a number of other ALs expressed some kind of distrust in regards to social media. Issues of mandatory involvement in social media for tutors, monitoring and privacy were key themes that were raised in this regard. These were all linked to an overall questioning of the use of social media by other users.

[talking about Facebook and Twitter] "I've consciously avoided them because I don't want that kind of contact with the general population that talk about absolute s*** most of the time, and when they don't do that they lend themselves towards litigation" (FG1).

There was an underlying hint of suspicion in regards to social media in both focus groups. This was underlined by a worry of the past pace of technological change in general working life. There was almost an argument between two ALs in focus group 1 in regards to the use of social media for "good" or for "bad".

ALs expressed an immediate concern to whether their engagement was being monitored on the platform, i.e. would someone from the OU be recording those who engaged and those who did not. This was linked to ALs trying to understand the expectations of their involvement in the platform.

SocialLearn as "mandatory"

There was a lot of concern that the engagement with the platform was mandatory. ALs did not like feeling forced to engage with social media. Engagement needs to be voluntary: "I mean ultimately if I was forced to take part in any social media platform, I would tell them to go and (!**!) because anybody will never be coerced or forced whether it's by contract or not to take part in discussing my own views" (FG1).

In regards to SocialLearn, AL's were concerned because the information and encouragement to engage with SocialLearn came from a Staff Tutor who had responsibility for many of the study participants. Any potential mandatory expectations linked with use of social media were met with reserve:

"is there an expectation there that I'm supposed to be committed to this, because I would feel much more comfortable if there wasn't an expectation that I have to give an immeasurable amount of time to it because my time is so precious as it is, with so many different commitments workwise, personally and so forth, but I'd feel very comfortable about it being a comfortable friendly place where you can pop in and out and join things and so forth" (FG 1).

To combat this, focus group 2 participants discussed the need for reassurance from the Open University and to set out guidelines and principles in regards to ALs mandatory engagement with social media.

Privacy and Social Media

In the focus groups there was particular concern about students having access to the AL community: ALs would not wish to engage if they had to worry about not being candid in their responses. On the same note, there was concern regarding the engagement of Staff Tutors in a potential AL community:

"that's a serious issue if you feel that people from within your employment organisation have the possibility to know how I act professionally may be very different to how I might vote politically and I think there is a serious issue there" (FG1).
There was an explicit request for reassurance in regards to comments and other engagement being confidential and would not be used for managerial/contractual, circumstances. There was an 'us' and 'them' feeling expressed by some ALs in regards to a perception of the OU hierarchy. Ground rules need to be set for social media engagement for ALs so they feel more secure for the future.

The ALs involved in the pilot were clear that they wanted their postings in the community to be private. However the permissions and connection options in SocialLearn are so confusing that people did not know who had access to collections and postings. After making everything 'private,' a person not part of the community was able to comment on the Scottish Independence debate. This is one of the more important and pressing issues to get right if the SocialLearn platform is to be a viable place to build an AL community, especially as students also have access to their postings. Privacy options must be clear and manageable.

**Barriers to using Social Media**

Barriers that were mentioned to using social media included technical difficulties. There was a sense of a "generational problem" felt by some AL's who were struggling to keep up with the fast pace of social media. First, access to these platforms was key to its success, and they had to be very simple to access and use.

"when I'm in front of that blasted machine, arguably after a few seconds, if there isn't a button that is really colourful, then really I'll start to lose interest" (FG1).

There were also practical time related issues as the demands of teaching and social media compete. Motivation for using platforms dropped when there was a lack of engagement and response to posts.

There were also mixed understandings on what the platform was to be used for. There are mixed expectations in regards to social media where there are multiple platforms and forums with underlying expectations to engage with them all. With these multiple platforms comes a high amount of information and some AL's found it difficult to pick out key and important messages.

AL's also worried about the engagement of other users. AL's thought other media sites were often used as a platform for others to complain or vent their issues. If the platform was seen as a social site for AL's they were worried about student access. It could also be "another place where you might be judged" (FG2). This point was linked to the previous benefits as stated by AL's in that social media was seen as another platform where people need to manage their 'sense of self' (Goffman, 1959).

Therefore technical issues, time constraints, other users and mixed messaging around the use of social media were seen as the key barriers to creating a successful social and learning community.

**Discussion and Conclusion**

Our conclusion is that there is appetite for a dynamic and controlled academic online environment from the pilot group. The online platform SocialLearn that was utilised, however, was not dynamic or quick enough to be viable for time-constrained users. Furthermore, there have been some key learning points that have come from the pilot include issues around privacy, usability, outline expectations, audience and communication plans.

Firstly, the privacy settings of an online community must be set out clearly at the beginning. Those that have potential access to the community must be communicated and set out clearly. If the community is being monitored in any way it must also be stated in advance. By offering this transparency this could help elevate user's potential worries over privacy and monitoring. Expectations also need to be established/made clear from the outset of creating online academic communities. Issues around mandatory use cannot be linked to the expectation of social elements within a community. If this is clear at the beginning this can assuage any worries from the potential user group.

The online platform must be quick and easy to access and use. If you need a tutorial to use it, it will not work. The SocialLearn platform was visually accessible but users struggled with new concepts such as 'collections' and access paths were not at first obvious. This is particularly important in a world of where social media appears to be ever gathering more
pace. Furthermore, any online platform must be augmented with other types of contact such as face-to-face contact, e-mails and the use of other media to maintain momentum and engagement. The establishment of a successful online academic platform must include an overall communication plan for the user group as well. Multi-level communications can keep momentum and interest in the online community.

Finally, the nature of the potential audience or users is very important. In this case, the context of changing tutor roles around online and blended learning must be considered in conjunction with the creation of academic communities. There is also the element of users negotiating their online 'selves' online. When creating a potential online academic community the nature of the audience must be considered in advance.

Overall, this pilot has given valuable insight to the creation of online academic communities. It has shown clearly that there is potential in this area. To be successful, however, issues around privacy, online expectations and potential users of the community should be overt and transparent. This would help overcome barriers that users may have to engaging in online communities. The nature of the audience matters very much for the uses of an online academic community and it must be embedded in a multi-level communication strategy to really engage a wide set of potential users.

References
Appendix A - SocialLearn Platform

Social Sciences Academic Engagement Pilot Community

This is a pilot community for the Social Science and Society community. It is open to all social sciences at the OU in Scotland.

Research interests

Anyone got excellent ideas for a very busy AL?

Social Media in an Academic Environment

The Institute of Health and Wellbeing, Medical Library, University Avenue, Glasgow, G12 8QQ

User Breakdown

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Appendix B - SocialLearn Analytics, November 2013 - April 2013

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Teaching Postgraduate Students

Individualised Self-assessment to Enhance Employability (I-SEE) in postgraduate students

D Marais
University of Aberdeen, Scotland

Abstract
Enhancing students' employability is increasingly being recognised as a priority for Higher Education Institutions. The aim was to develop an online resource to extend employability provision for taught postgraduate (PGT) students. I-SEE was piloted utilising the virtual learning environment in 41 PGT students within the Division of Applied Health Sciences. Students completed a self-assessment of employability skills. Automated responses provided tailored feedback identifying development areas and signposting to appropriate support. Students were required to record and reflect on their progress using an e-portfolio and identify their own skills and attributes to use within future employment applications. Self-rated skills did not seem to reflect scores achieved in assessments and engagement in reflection was poor. Students seemed divided in their opinions of impact and usefulness according to previous experiences. Practical problems were identified and ways to improve engagement were suggested. It is hoped to extend the resource to other postgraduate programmes.

INTRODUCTION
Employability is defined as 'a set of achievements - skills, understandings and personal attributes - that make graduates more likely to gain employment and be successful in their chosen occupations, which benefits themselves, the workforce, the community and the economy'. Embedding employability into the student experience has been the subject of much debate and is increasingly being recognised as a priority for Higher Education Institutions (Knight and Yorke, 2006). Extending employability provision for postgraduate students though has received less attention. Taught postgraduate students are a unique group undergoing a short, intensive period of study and usually have diverse graduate/professional backgrounds and nationalities with a higher ratio of international to home students. This translates into a multiplicity of previous experience and skill levels in terms of key employability competencies, previous teaching and assessment practices and English language proficiency (Marais and Perkins, 2012). Furthermore, postgraduate study requires a greater depth of engagement and uses a significant range of principal skills and techniques (SCQF, 2010). Although induction programmes are usually provided to take this diversity into consideration, they are generally not individualised or reflective in nature.

This paper builds on previously reported research of a pilot project that was conducted to evaluate the use of a paper-based self-assessment skills audit with taught postgraduate students enabling students to reflect on their current skills profile and to prepare a tailored action plan to address their personal development needs and reflect on their development. Feedback and evaluation data collected from students found the audit to be a useful and supportive tool, especially for international students, adding value to their programme by providing insight and allowing them to plan their development. A recommendation from the project was to decrease the workload of the programme coordinator by developing an online resource (Marais and Perkins, 2012).

The aim of this project was to develop an online resource to extend employability provision for postgraduate students initiated by a self-awareness employability questionnaire providing individualised feedback and links to supportive employability resources.
METHODOLOGY
The resource was developed for students following taught MSc programmes in the Division of Applied Health Sciences. All students registered for the 2012/13 academic year were recruited to take part in the evaluation of the I-SEE (individualised self-assessment to enhance employability) resource, which was implemented as part of the non credit-bearing induction programme. Students were informed of the resource at the beginning of the academic year and participation was encouraged.

Development of the resource
I-SEE was developed and disseminated to students via the Blackboard-based virtual learning environment utilised for blended learning at the University of Aberdeen, namely MyAberdeen. A logo was designed to give the resource an easily recognisable identity (Figure 1).

![I-SEE logo](image)

**Figure 1: I-SEE logo identifying resource material within MyAberdeen**

The process involved three stages, an employability skills audit, followed by a reflection stage and a final articulation stage. Each of these will be described in terms of tools used and feedback provided to the students.

**Self-assessment employability skills audit**
Prior to completing the self-assessment questionnaire, students were asked to complete two existing non-credit bearing courses assessing their academic writing and IT skills. They were also encouraged to complete selected psychometric testing. Students were requested to complete the skills audit within the first month of their studies. Specific due dates for assessments were provided.

The academic writing skills assignment required students to summarise a given text in a maximum of 150 words. Each programme coordinator provided a relevant extract from an article and students were given one hour to complete the task via the MyAberdeen quiz tool. The summaries were not marked automatically and programme coordinators were requested to assess using a standardised rubric relating to the accuracy of summary and language usage (grammar, punctuation and spelling). The common assessment scale (CAS) of 0-20 at Aberdeen University was used with specific descriptors for each mark allocation. The rubric also provided tailored feedback and signposting to resources for specific mark ranges. The scores and feedback were uploaded onto MyAberdeen. Students receiving a mark of 6-8 were signposted to online resources specific to their development area(s) and those receiving a mark of less than 6 were requested to attend workshops provided by the University’s Student learning services.

The IT skills questionnaire includes 50 multiple choice questions regarding basic IT skills deemed essential to follow the programmes, covering aspects of e-mail, Excel, PowerPoint, Word and general internet use. Students are asked to respond yes, no or unsure to whether they are able to conduct specific tasks. All ‘yes’ responses score 1, ‘no’ responses score 0 and ‘unsure’ responses score ½. Any ‘no’ or ‘unsure’ responses received feedback via the quiz tool, signposting students to online guides for that specific task (page numbers indicated within the guides).

The University of Aberdeen’s Careers Centre has acquired a variety of psychometric testing freely available to all registered students via the Profiling for Success website. Four of these
were identified to be included in I-SEE - abstract, numerical and verbal reasoning skills and a Type dynamics indicator form for personality typing. Each of these tests are time-limited to 10 minutes. The scores and individualised feedback is automatically emailed to the student from the website.

A self-rating skills audit was developed utilising the quiz tool. It was based on the HEA employability profile for Health Studies (Rees, Forbes and Kubler, 2007) and the University of Aberdeen's Postgraduate Attributes (University of Aberdeen, 2012). The attributes describe four required characteristics of a University of Aberdeen masters education: to enable taught postgraduates to become academically excellent; critical thinkers and effective communicators, open to learning and personal development, and active citizens.

In addition to providing feedback on the scores from the six assessments completed, self-rating was required for other aspects such as communication skills/academic writing (essays, exams, oral and poster presentations, publications, referencing); IT skills (basic word processing, TurnitInUK, track changes, data base search); group work and self-development (identification of strengths and weaknesses). Automated feedback indicating areas needing development was provided via the quiz tool according to responses provided by the student with signposting to relevant online support or workshops/courses within the University.

**Reflection stage**

Students were asked to upload evidence of development activities onto e-portfolios over the next few months of study. Explicit instructions on how to create their own e-portfolio in MyAberdeen to act as a resource depository were provided. They were then requested to reflect on their progress by completing a checklist after six months. This involved having to reflect on identified areas of development, the progress made and future/planned actions.

**Articulation of employability skills stage**

A template for a UK-style CV as well as supportive documentation on how to articulate these skills was provided. Links to helpful online resources within the Careers Services was also available.

Students were invited to focus group discussions nearing the end of their academic year to provide their opinions on the impact of I-SEE, what they found most and least helpful and any suggestions for improvements. They were also asked whether they felt that development should be followed up by programme coordinators or be on their own initiative.

**RESULTS**

Forty-one students, registered for one of 5 MSc programmes within the Division of Applied Health Sciences, took part in the study (Figure 2).

It is clear that although participation was better initially (93%), this decreased for the self-assessment questionnaire a month into the academic year (83%) and dropped considerably for the reflection stage six months into the academic year (59%) (Figure 3). Announcements were sent via MyAberdeen to remind students of looming due dates and individual reminders were sent via the e-mail function of MyAberdeen for those who had missed the deadline. Seven students did not progress to the second half session of the programme.
Figure 2: Sample size and distribution within MSc programmes in the Division of Applied Health Sciences

Figure 3: Participation for each stage of the assessment and reflection processes (N=41)

Interesting findings from the self-assessment questionnaires show that students did not report the scores obtained from the tests completed prior to the skills audit accurately and self-rating did not match the actual scores of the assessments. Almost half of the students responded that they could not find or remember the scores from the previous assessments. For the academic writing assignment, only three students scored below 9 and none below 6 (CAS range 6-20, mean score 14). When asked to self-rate their academic English language proficiency though, 13% (n=5) rated themselves as average or poor. There was no correlation between their self-rating and actual scores for the assignment for example, those self-rating their English as excellent, scored between 8-20 in the assignment and those...
rating themselves as good, scored between 6-17. A similar trend was found for the IT skills where scores ranged from 21-50 (mean score 43 out of 50) whereas self-rating indicated that 10 believed they had average or poor IT skills. Students achieving scores of 19-50 rated their IT skills as good and average when scoring 32-43.

Self-confidence seems low when looking at responses of how questions are answered, teamwork and nervousness in terms of public speaking. Self-awareness also seems lacking as students were not able to describe their strengths and weaknesses very well especially when asked to indicate how a friend/peer/colleague would describe them. Publication skills (oral presentations, article and poster submissions) were identified as common development areas. Most students seemed to have an awareness and involvement of active citizenship and reflected an openness to lifelong learning.

The checklist responses received indicate that the most common development areas were communication (written and oral) and IT skills. Students identified areas of development and this linked fairly well to the self-assessment. About two-thirds indicated that they had referred to some support or resource to improve their identified development areas and some reported getting support even though this was not identified as a development area for them.

**Focus group discussions**

Three focus group discussions were held with 19 students and each lasted about an hour. The initial responses to the question of whether they thought I-SEE had had any impact on their employability were fairly unsure with a lot of shrugging and some head shaking. With further discussion though, it became clear that students were divided according to their previous exposure or experience. There was a definite difference in response from local students versus international students, with international students generally indicating that it was much more useful to them. Some selected comments reflect these differences:

*I already have a job and a career, so I did not see the use of it for me - it was a bit of a waste of time for me - but I can see it can be useful for others who have not had this at undergraduate level.*

*Not a total waste of time as it did reaffirm what I already knew, but perhaps more useful to others who have not done this before.*

*This is needed in the 'real world' so everyone should do it!*

Similarly, when asked to identify the most useful or helpful aspects of I-SEE and those not useful, responses were divided, generally differing between home and international students and those with English as their home/first language or not. One of the international students for whom English is not her home language, said: *It was good that it (the academic writing assignment) was early. I found it difficult and didn’t do well, but this helped as it made me make an appointment with my programme coordinator and it helped a lot speaking to her about this.*

The personality typing was found to be interesting and fun and generally reported as the most enjoyable even though many had done this before. An interesting observation from one of the students was that *Some of us did the test at the same time in the computer room and then discussed the feedback that was emailed - we did this informally in a group ...... It was interesting to see your own results and others’ .... With comments like ‘that is so you’.*

Generally the reflection stage was identified as being the least helpful. Discussion about this aspect though usually ended in students indicating that although they did not feel comfortable or enjoy this, they do realise that *... in the real world this is what you need to do (reflect) ...* A suggestion was made that *the reflection stage should be done in a computer room together at one time and time allowed for sharing experiences.* The students struggled to create e-portfolios and felt that they already have too many places to keep information for updating their CV. They did feel that the tips for articulating their skills on their CVs was very helpful. Timing of the articulation stage though could be reconsidered as indicated by this
quote: *For our projects, we had to provide a CV and the course coordinator offered to provide feedback on our CV before submitting. This was very useful but before the information was available on I-SEE and not in the same format.*

Interestingly, when asked whether there should be follow up from programme coordinators, the general consensus was that *...actually I suppose it is really our own responsibility...*

Students indicated that the automated feedback was good, but because only one response is seen as correct, they felt the feedback could be misinterpreted. They also felt that the signposting for online supportive employability resources was not very helpful as many of the guides provide fairly superficial advice. They felt strongly that workshops would be much more useful but only if overlap was prevented and if attendance was tailored according to previous exposure and skill levels.

Practical issues with MyAberdeen, MyGrades and the e-portfolio were identified. Timing of assessments was highlighted as a problem as they tended to interfere with course workload at times as indicated by this quote: *We didn't have time to focus on it because of the workload in our courses.* Students also felt that it would be better to know more about the resource and the objectives of the assessments as indicated by these selected quotes: *I did not take this (academic writing) assignment seriously, so could have done much better. It was helpful to me but I wasn't really sure what it was for, perhaps if we knew earlier on, we would have taken part more.*

Various suggestions were made to improve I-SEE, including that the checklist be populated automatically with development areas and workshops be held to support the use of MyAberdeen especially regarding e-portfolios and MyGrades. An introductory session explaining the importance of I-SEE more explicitly was encouraged. Suggestions for timing of the assessments were made with a general consensus being reached that most self-assessments could be completed during the induction week before course workloads increase and that the reflection stage be completed together at a time when it did not interfere with coursework. Additional information regarding interview skills and using social media to market yourself were suggested. An opt-out option for students who do not want to utilise the resource was also suggested by a few students.

**DISCUSSION**

Overall, it seems that I-SEE was seen as especially useful for international students who seem to be following a steeper learning curve (Evans et al., 2009), having no or limited previous exposure to employability support. The general consensus was that it should be available to all postgraduate students. Student-led selectivity or an opt-out option for students at the beginning may be a suggestion to consider. It would be important to ensure that students do not opt-out for the wrong reasons though, such as perceived additional workload or lack of foresight of the benefits. The decision should be informed and balanced by a detailed explanation of the importance and benefit of the resource for future employability. The use of the I-SEE logo can be seen as a start to providing a ‘brand’ for the resource and should be marketed with positive messages informing students of the long-term benefits. Getting the students’ buy-in at the start seems essential. Students should then take the assessments more seriously and hopefully benefit more from the experience. It is essential that programme coordinators are also informed of the resource and its potential advantages to the students. Their buy-in and engagement is very important. Additional advantages should be highlighted such as early identification of problem areas for specific students as well as the fact that it is an automated process and therefore adds very little to their workload.

Ensuring that the support provided to students is relevant is crucial. Each student will be different, having already acquired some skills or competencies, be in the process of developing some further or missing some altogether (Harvey, 2001). Students encouraged
the addition of workshops where practical advice is provided tailored to their level of expertise or previous experiences. Being able to pitch the information provided at the correct level is extremely important. Students who have the skills will feel frustrated and bored by resources repeating what they already know, whereas students who have poor levels of skill or no experience will be lost if the resources are aimed at a higher level. Trying to please everyone is an impossible task for the presenter. Generally, the result is that the presenter aims for a middle ground and ends up not satisfying the needs of either group (Tacman, 2010). Selectivity by the students themselves may therefore further enhance their employability (Harvey, 2001).

The decline in engagement is not unique to this resource and is a common phenomena as the academic year progresses. Participation in reflection is also not uncommon in students (Edge and Kutieleh, 2005; Marais and Perkins, 2012), but it is encouraging that students do seem to realise the importance of this practice in ‘the real world’. Previous findings support the suggestion by students that the reflective stage should be structured (Jankowska, 2010). It is very encouraging that they also suggested that this would provide an opportunity to share experiences. Timing of the stages of the resource was again (Marais and Perkins, 2012) highlighted as being crucial to improve engagement. Early assessment when workloads are low seems to be the way forward. Reflection should be timeous in terms of academic workload but structured as discussed previously. The timing of support in articulation of their employability skills should also be considered to coincide with course requirements. Most research projects of the MSc programmes entail some form of a selection process and it may be useful to include this stage of I-SEE to coincide with the need for a CV for this selection process. Furthermore, the use of social media in the development of their CVs may encourage students to see the relevancy of the resource and its benefit in the real world.

Perhaps the most worrying aspect is the lack of incongruent self-rating, self-confidence and self-awareness that was displayed. Students found it difficult to express their own strengths and weaknesses as found previously (Marais and Perkins, 2012). The concern is that as self-awareness is essential in enhancing and actually underpins employability, it is critical in allowing individuals to reflect on, identify and articulate their skills, competencies, interests and motivations (Watts, 2006; Knight and Yorke, 2006). This lack of self-awareness may therefore prevent the students from improving their employability. The inaccurate reporting or not remembering scores or feedback on the other hand can in part be attributed to the fact that students did not take these assessments very seriously or believe in the benefit that could be achieved. Another possible reason for the inaccurate reporting may be that students were unsure of using MyAberdeen. This points to a lack of adequate training in using the VLE and should be addressed more fully during the induction period. In addition, self-rating may be subjective, and although students were asked to be honest and the aim of the exercise explained, their lack of buy-in may have had an impact on their self-rating behaviour.

Lastly, the current limitations of the quiz tool in MyAberdeen need to be investigated and possible solutions to improve I-SEE explored. More tailored feedback to the students is required in some cases and automated population of a list of developmental areas would be ideal. The possibility of generating an automated action plan providing a list of proposed workshops and automated booking in addition to signposting to online resources should be investigated.

An interesting finding was that although various studies have found face-to-face contact to be a positive aspect (Mayfield and Du Feu, 2010; Marais and Perkins, 2012), in the end students in this study felt that development is their own responsibility. The positive impact of the face-to-face contact can be incorporated as pastoral support in the overall programme and need not necessarily be a part of this resource. It can be argued though that flagging up
of possible at-risk students to programme coordinators would be useful and could even have an impact on progression if identified early enough. Ultimately though, this is meant as a reflective and self-awareness resource if it is to improve employability (Knight and Yorke, 2006).

CONCLUSION
I-SEE is a useful resource especially for those with no or limited previous exposure to employability support. Students need to be made aware of the importance of the resource and potential benefit to their future employability. In addition to online resources, more practical sessions should be included but these need to be relevant, appropriate for the skill level and self-selective. Engagement can be improved by providing training in MyAberdeen, discussing the benefits of the resource and reconsidering the timing of the various stages of I-SEE. Self-assessment is important to developing reflective practice and self-awareness in the students and underpins their employability. It is hoped that I-SEE will be extended as a compulsory course for all taught postgraduate students in the College of Life Sciences and Medicine and the possibility of incorporating it into the research postgraduate students' programme will also be investigated.

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REFERENCES
http://www.heacademy.ac.uk/ourwork/teachingandlearning/employability (Accessed 10 October 2011)
SCOF level descriptors, 2010
Making the Most of Masters: Understanding the impact of work based learning provision for taught postgraduates

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ABSTRACT: Making the Most of Masters (MMM) is a partnership between the Universities of Aberdeen, Edinburgh and Stirling aiming to provide opportunities for masters students to undertake dissertation projects in a work based setting. The project emphasises building networks and adaptable resources which means that MMM can 'look' very different in different 'places' (different economic sectors, different disciplines and different universities or research pools) all of which can interact. This presents a significant evaluation challenge as like cannot necessarily be compared with like. This paper illustrates how an evaluation approach developed for the Quality Enhancement Framework by a team from Lancaster University between 2003 and 2010 can be adapted for use with MMM. It is argued that this approach can be adapted to carry out similar impact evaluation challenges in higher education.

1.0 Introduction

Making the Most of Masters (MMM) is one of the SFC funded Learning to Work 2 (LTW2) projects that are developing different models for integrating work-based learning into the student experience in the Scottish higher education (HE) sector. The MMM project is a partnership between the Universities of Aberdeen, Edinburgh and Stirling and aims to enhance collaboration between employers and universities by providing opportunities for masters students to undertake their dissertation projects in a work based setting. The project creates resources, support systems and ways of working intended to be adaptable across different disciplines and economic areas in Scotland.

These dissertations are referred to as work based projects (WBPs) and are undertaken on behalf of organisations and intended to add real value to their work. This are intended to be mutually beneficial as the students should also get to develop their employability and academic abilities by dealing with 'real world' issues. There are intended benefits for participating programmes and institutions as well as they can be viewed as a form of curriculum enhancement in terms of the dissertation and can also be used for marketing purposes. The MMM project works with three research pools in Scotland as well as within the three partner institutions. The research pools cover particular subject areas (including a concern with research and taught postgraduate provision). The MMM project works with research pools in life sciences, marine science and technology and energy. These are the Scottish Universities Life Sciences Alliance (SULSA), the Marine Alliance for Science and Technology for Scotland (MASTS) and the Energy Technology Partnership (ETP). Each research pool is a stand alone partnership made up of a number of universities and sector-wide stakeholders. They are also funded by the SFC.

One of the research pools (SULSA) has appointed its own project officer whose work is split equally between MMM and developing three month long professional internship opportunities for funded PhD scholars (for which MMM resources have been adapted and utilised). The MMM partnership network therefore includes the research pools and the universities they work with as well as the three original partner universities. Within this network there are varying degrees of engagement and autonomy for different participants. This is to be expected as there will be different levels of experience and need among programmes. Also, although MMM develops and produces resources and support systems, it does not have the resources to undertake in-depth engagement with large numbers of programmes across the sector. In addition academic 'ownership' of the WBP development process needs to lie with the programmes themselves as the projects have to meet the
academic requirements laid down for masters dissertations for each participating discipline and institution. As relatively large partnerships themselves, the research pools mostly administer the process independently (with MMM guidance available) using MMM resources with their own connections and networks. The process is thus devolved to a large extent in some cases. This can also be true for some programmes at the MMM partner institutions. Some programmes already have experience of implementing WBPs and are happy to enhance their existing practices by using MMM resources with low input from MMM staff while others may be trying out WBPs for the first time and therefore need greater level of engagement from the team.

In summary, how MMM 'looks' in any one place can be very different and this needs to be taken into account. The MMM project develops support for programmes that are not always in direct contact with the team, in a variety of disciplines, subject to differing regulatory frameworks and with differing levels of experience in engaging with work based learning (this is before diversity of students and organisations is considered). This variety can present challenges to understanding and evaluating the effectiveness and impact of MMM as it is clear that one size does not fit all. While there may be elements that can be subject to like with like comparisons this cannot be guaranteed.

2.0 The problem of understanding and evaluating impact

In determining the effectiveness of MMM it is necessary to understand and evaluate the impact it has. This is for at least three reasons: Demand: To what extent there is a desire for WBPs among students, organisations and programmes? Development / process: How the various resources and processes work? How can these be enhanced and used in different Scottish HE contexts? Impact: to what extent are WBPs of use and value to MMM to stakeholders? This can be relatively straightforward. Surveys of stakeholder satisfaction can be undertaken and numbers of WBP opportunities taken up can tell us a lot about the final outcomes of WBPs, particularly in terms of take up by stakeholders. The developmental aspect of MMM is poses a greater evaluation challenge as understanding of how outcomes are reached needs to be gained in easy to measure ways. This is particularly so when the networked nature of the project and the challenges identified above are considered. Within MMM there are a variety of factors that can influence how MMM 'products' are taken up and used. These include:

Institution / research pool
Discipline / subject area
Prior experience of work based learning
Available opportunities / enthusiasm from organisations and students

MMM needs to design and test a system that can easily be used by others that can take into account a diverse range of contexts. There is a need to know how the process works and how it can be supported and enhanced in different places by different stakeholders who have varying degrees of experience. The evaluation approach adopted therefore needs to focus on processes as well outcomes. Through doing this, parts of the process that work well and also those which may need further development can be identified. The approach taken for evaluating is discussed in more detail below.

3.0 The evaluation approach

The approach adopted for the evaluation of MMM is informed by that used to evaluate the Quality Enhancement Framework (QEF) for learning and teaching in Scottish HE. This was developed and used by a team from the Educational Research Department at Lancaster
University between 2003 and 2010 (Saunders et al, 2006 and 2009). This approach is discussed below and can be applied to a variety of evaluation situations beyond MMM and QEF. The QEF evaluation team faced a similar challenge in finding a coherent evaluation framework to MMM in that quality enhancement activities can look very different in different places yet still adhere to the requirements (and spirit) of the enhancement framework.

In particular, three elements were taken from the QEF evaluation. These were: Theory of Change: a way of conceptualising how a policy change is actually thought to work by its users (Weiss, 1997; Connell and Kubisch, 1999) RUFDATA: a method for understanding and framing evaluation activity (Lent and Machell, 2011) Activity Theory: used as an analytic framework for interpreting evaluation data relating to culture and impact (Engestrom, 1999)

These are discussed in more detail below after a short introduction to the Quality Enhancement Framework.

3.1 The Quality Enhancement Framework

The Quality Enhancement Framework for Learning and Teaching (QEF) in Scottish HE is a sector-wide policy initiative aimed at rebalancing the twin concerns of quality assurance (QA) and quality enhancement (QE). These concerns are often viewed as antagonistic with QA seen as an aspect of an all encompassing 'audit culture' (Power, 1997, Shore and Wright, 2004). This rebalancing can be seen as reducing emphasis on ‘objective’ measurement of outcomes and increasing emphasis on effective practices as part of a developmental approach to quality (Gordon and Owen, 2006). Assuming the pervasiveness of audit culture, this represents a major cultural shift for the Scottish HE sector. Indeed from the beginning of QEF there was an awareness that the desired 'impact' would be through a change of culture in the sector. This change was to be largely understood in terms of changed practices within institutions, aimed at enhancing the student learning and teaching experience. As MMM is a Scottish higher education project its activities take place with the wider policy context of the QEF.

The QEF is underpinned by broad principles designed to facilitate desired changes:

Collegiality
Consensual development (to promote a greater sense of ownership)
Alignment of aspirations to specific actions rather than general exhortations
A relatively 'light touch' that is considered most likely to yield improvement

The notion of practice was viewed as a key indicator of cultural change, and the evaluation was informed by theories of social and cultural practice (e.g. Bourdieu and Wacquant, 1992; Wenger, 1998; Engestrom,1999). This included ways of thinking and writing about quality and also the day to day practices of stakeholders at different levels within the sector. It also included practices undertaken by institutions, departments or schools and programme teams along with sector wide systems associated with the strategy.

In this process, discourse was viewed as a proxy for practice so evaluative judgments were inferred from how respondents talked about and described their experiences in relation to learning and teaching in either the sector or their institutions. These judgments were based on perceived alignment between practices and values described by respondents with those previously identified and associated with the desired culture of enhancement. As the Scottish HE sector (like any other sector) is a place where multiple policy and practice strands come together, it may be difficult to attribute specific changes directly to the QEF. However, positive changes can be understood in terms of the degree to which they align with the
values espoused by the framework. Similarly with MMM, it may be difficult to prescribe good practice in detail but more easy to identify in context using the framework described in Figure One. The work of MMM occurs within this wider context of a desired enhancement culture in the sector and is itself an example of enhancement practice.

3.2 Theory of Change

In the QEF evaluation the theory of change was articulated by stakeholders at various levels in the sector and then interpreted by the evaluation team. For MMM this part was relatively easy in that the MMM team is responsible for both evaluation and implementation so the team itself was used to draw up the initial theory of change (although theory of operation might be a more accurate term). This was undertaken by focussing on conceptualising the general WBP lifecycle as a series of different stages, as shown in Figure One.

![Diagram showing the flow of key stages in implementing a work-based masters project]

In Figure One, each number in the diagram indicates a critical stage in the chain of project activity that requires consideration. The fine details of the processes have been literally boxed off in the diagram. The processes involved in each box may be highly variable. For example different programmes may engage with employers in different ways (or rely on research pools to make the connections for them, for example). They may also assign students to projects in different ways. For instance, students may be required to apply using their CVs and a covering letter with shortlisted candidates being interviewed by the host organisation while others may assign students to projects based on expressed interests and levels of academic attainment reached within the programme thus far. Regardless of the exact procedures adopted it is argued that each stage is necessary to the process of developing and implementing WBPs. Understanding the broad flow of activities necessary means that areas where support mechanisms need to be developed can be identified. Impediments to the flow can also be anticipated and steps to avoid these taken. It also means that where there are blocks in the process these can be identified. For example, there is evidence of blocks at point four (assigning students to projects) for some projects. In these cases it is likely that engagement with employers and programmes, topic identification and conversion of ideas into a specific masters project have been probably been successful. The block is with finding a suitable student to undertake the project. If this is a common occurrence for certain programmes or certain types of project then this will need further exploration. Through modelling the WBP development process we have the beginning of a framework through which MMM processes as well as outcomes can be evaluated.

Thinking in terms of a relatively straightforward general process provides a framework on which to 'hang' the diversity of form discussed above. Although there may be a common 'skeleton', MMM processes will still 'look' very different in different 'places' (different economic sectors, different disciplines and different universities or research pools) so it is
possible for variations on the generic theory of change to emerge in terms of detailed processes.

This outline process in Figure One is the first part of the evaluation approach developed for the MMM project to be applied to understanding impact in relatively complex and loosely coupled systems.

3.3 RUFDATA

The practice based approach of the QEF evaluation was coupled with a systematic way of understanding and planning evaluation known as RUFDATA (see Lent and Machell, 2011 for a more detailed outline of this approach to evaluation of the QEF). RUFDATA is a generic method for organising evaluation and is an acronym standing for:

Reasons and purposes
Uses
Focus
Data and evidence
Audience
Timing
Agency

These elements are discussed in more detail below in relation to the evaluations of QEF and MMM.

Reasons and purposes
Michael Patton (1997) makes the claim that evaluation findings tend to serve three purposes, making judgments; facilitating improvement; and generating knowledge. Some evaluations try to incorporate all of these but one tends to dominate and, can therefore be seen as the primary purpose of the evaluation. It makes sense before embarking on an evaluation to be clear on the purposes of the evaluation and the relative priorities if there are multiple purposes.

For the QEF evaluation the main purpose for the evaluation was to understand levels of cultural change in relation to enhancement and associated values in the sector and to what extent these were enhancing students' learning experience. More specifically the purpose was to gain understanding of how elements of the framework such as enhancement themes were being used by stakeholders.

For the evaluation of MMM the main purpose is to understand more about creating and implementing WBPs in order to enhance the process and aid the spread of good practice. More widely MMM also wishes to gauge whether good WBP practice is exclusive to taught postgraduate programmes or whether it can also be relevant to work based learning at undergraduate and research postgraduate levels. The is also a summative reporting element for the SFC.

Uses
The main use of the QEF evaluation was to utilise knowledge gained on how elements of the framework (eg the enhancement themes) were used by stakeholders. This knowledge could then feed into making any necessary changes to ensure their usage aligned with the cultural values identified as associated with enhancement practices. This was primarily a reflexive process. MMM evaluation also has an important reflexive aspect. Essentially it is intended to increase understanding and enhancement of the processes and links outlined in in Figure One. Evaluation data also feeds into MMM dissemination and marketing activities, especially in terms of bringing on board new partners either within the existing MMM
partnership or developing new partners. Both seek to understand how resources are adapted, used and 'owned' by stakeholders.

Focus
In the QEF evaluation the focus was on stakeholder practices in relation to enhancement themes and their judgments on how useful the themes were in relation to these. The summative element of MMM means that there is a greater focus on levels of stakeholder satisfaction. The network and variety of stakeholders within it is smaller than for the QEF evaluation.

Data and evidence
The data gathered for the QEF evaluation was mostly qualitative considering the focus on judgment, values and practice. This was used to build up an emerging 'theory' of enhancement, culture change and associated practice. The data for the MMM evaluation is, in proportional terms, more quantitative in emphasis. This is partly due to time constraints, the greater summative requirements and that the project began with clearer evaluation questions from the funders of the project that are more amenable to quantitative evaluation. Nevertheless there is a similar interest in how resources are used by stakeholders and how these uses relate to their goals. There is also a concern to build up a 'working theory' (theory of change) of WBP implementation that adds detail to the process illustrated in Figure One.

Audience
In the QEF evaluation there were multiple audiences and these included: SFC as the commissioner of the work, sector-wide bodies such as QAA Scotland, institutions and individuals within institutions. The MMM project is also commissioned by SFC and also connects with sector-wide bodies. MMM works directly with the Scottish Higher Education Employability Forum (SHEEF) and others such as HEA and Universities Scotland. The institutional audience is more well defined than for the QEF evaluation in that it focusses on specific programmes. In addition there is also a direct focus on students in terms of marketing and providing support material from MMM. Finally, organisations such as employers are directly linked to MMM as a stakeholder group.

Timing
With the QEF evaluation there were regular agreed reporting times and data collection was planned to take place across the whole life span of the evaluation. The timing of the MMM evaluation is different and also more concentrated. Masters dissertation projects tend to work to a cyclical, mostly fixed, timetable across the summer period (what would be the vacation for undergraduate students). This restricts much of the evaluation data gathering to a relatively narrow post-project time window after the projects are completed in August-September. This is particularly important in terms of gathering data from students as many of them leave the university soon after completion.

Agency
The QEF evaluation was carried out by external evaluators who had negotiated the evaluation activites with the commissioner during the bidding process. In contrast, the MMM evaluation is an internal evaluation carried out by the MMM project team and this is, in part prescribed by the commissioner of the evaluation. The main aim of the MMM team is to achieve success in developing support for WBPs, spreading good practice and gaining wider interest in WBPs from around the sector. This leaves less time available for evaluation and means that evaluative activity needs to service these needs rather be an end in itself for the team.

3.4 Activity Theory
Activity Theory (Engestrom, 1999) provides a means of analysing individual activity in the context of networked social systems (e.g. university departments / schools or a masters programme team). It allows complex relationships with a socio-cultural system to be (relatively) easily modelled. A generic activity system is shown in Figure Two.

![Diagram](image)

**Figure Two: a generic activity system according to Engestrom's (1999) activity theory.**

In Figure Two the subject label denotes an individual worker (e.g. a lecturer or a masters programme director) and the object of their activity is how they view the purpose of their activity (in this case their work) at any one time. This subject-object relationship will be affected by the other parts of the diagram (it should be noted that every part is linked to every other part and is capable of influencing and being influenced by every other part). For example, it is likely to be mediated by various tools / artefacts (at the top point of the triangle). These tools can be physical and conceptual and can include various operating procedures that are in turn affected by the rules and conventions in use in the workplace (bottom left of the diagram). These can be explicit rules laid down by the institution (e.g. academic regulations and procedures) or an external body such as the Quality Assurance Agency (QAA), the institution, professional bodies or more implicit rules and conventions that have emerged over time within the system. In the case of an academic department or programme, the community would refer to all those working in the department or on the programme. The division of labour refers to the various different roles undertaken by the members of the community. Individual objects of activity may vary depending on a worker's position in the division of labour.

For example, under the assurance mode prior to the implementation of QEF, a senior university manager might define the object of their activity as obtaining a range of very high teaching quality scores from external audits in order to boost or maintain their institution's position in national league tables. They may achieve this by using the explicit rules and procedures laid down by QAA to make clear what would normally be tacit 'rules of the audit game' that can be used as mediating artefacts in achieving the high score object of activity.

Figure Two can also be used to model issues relating to the operation of the QEF. For example, a lecturer may view the development of new ways of facilitating student learning as an object of activity. To achieve this the various aspects depicted in the diagram should be aligned. If the values of audit based quality regimes have not been displaced within an institution then mistakes by lecturers may be frowned upon even though these may be necessary learning opportunities in improving practice and recognised by enhancement led review processes (as long as institutions can show what they have learned from the
mistakes). It may be easier for lecturers to innovate if the community's values and objects are aligned and that other workers (e.g. administrators) in the division of labour have objects of activity that support this.

The implementation of WBPs in MMM can face similar challenges. In learning how to support the development and implementation in different contexts (different disciplines, institutions, economic sectors etc) it is likely that learning will occur from errors being made or through encountering unanticipated challenges. Indeed one general finding from the MMM experience is that the process outlined in Figure One is rather more complex than originally thought. Activity Theory is also useful to MMM in that many of of the resources developed are expected to to be used as mediating tools for the development and sustainability of WBPs. There are also two elements of the project that can become conflicting objects of activity.

Firstly, there is an expectation from the funders that the worth of MMM will largely be demonstrated by the number of WBPs developed and taken up by masters students and the numbers of HE stakeholders who show interest in using MMM's work. This could lead to a concentration of activity on maximising the number of projects set up during the MMM project lifespan. The second is the goal of learning about how to develop support for the development and implementation of WBPs that can be used independently by new users outside the current MMM partnership. This focuses on outcomes that involve incorporating reflection and learning into the development of guidance on practice and practical tools to support WBP implementation. It relies on supporting enough projects to facilitate necessary learning and insights but as a means towards an end rather than an end in itself. Concentrating on numbers of projects too enthusiastically could mean that MMM team members spend too much time directly supporting projects at the expense of learning how to support programmes in doing this. This could have the effect adversely affecting the development of WBPs and use of MMM resources beyond the project's end in December 2013. The activity theory framework outlined in Figure Two can be used to understand MMM activity in relation to these two potentially conflicting outcomes and evaluate progress towards its more developmental goals.

4.0 Conclusion

This paper highlights some of the issues that arise when attempting to evaluate educational initiatives whose intended outcomes are not always measurable in straightforward ways and proposes a way forward in dealing with these. This is particularly pertinent when such an initiative attempts to stimulate a change of culture where those subject to the initiative are expected to take ownership of the process and adapt it to their needs while aligning practice to desired cultural values. The approach used in the evaluation of the Quality Enhancement Framework for learning and teaching in Scottish HE has been suggested as providing a way forward for such evaluations. Three aspects of this evaluation approach have been highlighted and applied to the evaluation of the Making the Most of Masters project. It is hoped that these two examples illustrate how these three evaluation elements complement each other and can be used by interested parties to theorise, plan and analyse future evaluations.

References


What international students can teach us: Innovations in lecturing to multicultural classes

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Abstract
Listening to lectures in a second language is a challenge, even when the listener is generally proficient in the language. This paper reports the findings of a survey of international students’ perceptions of lectures (ISPoL) carried out at the University of Edinburgh with the aim of finding out what advice they consider, as consumers of lectures, to be most useful and relevant for academic staff wanting to enhance the comprehensibility of their lectures. Apart from two North American studies (Ferris 1998; Kim 2006), there has been little research into international students’ attitudes and perceptions of lecture listening in English-medium settings. The paper summarises the students’ responses to the survey and explores the implications, for lecturers and students, of adjusting to multicultural class communities in the ways proposed by ISPoL respondents.

Introduction
There are few more demanding tasks in a second language than taking notes on an academic lecture. Any form of listening involves the listener in mental work in three phases characterised by Anderson (1985) as decoding, parsing and meaning construction. In academic lectures, though, meaning construction takes on additional significance. Firstly the student has to enrich the ‘raw meaning’ extracted from incoming speech by putting it in the relevant context, inferring connections, understanding referential links and interpreting the lecturer’s intentions. Then they have to select the key points, monitor their consistency, integrate them into what has gone before and finally build up an overall structure or hierarchy of macro- and micro-points (Field 2011). In these circumstances, second language students’ success in understanding and taking notes depends crucially on their ability to recognise and compensate strategically for gaps in perception or parsing, using their prior knowledge to make sense of what the speaker must have said.

Certain features of lecturer discourse are known to help students follow what they hear; among them are repetition and reformulation (Chiang and Dunkel 1992), rate of speech (Griffiths and Beretta 1991) and use of visual aids (King 1994). These and other features do not only bring benefits for comprehension in the short term. Jung (2003) showed that students who listened to lectures containing clear discourse signals were able to recall in the longer term more main ideas and supporting details than listeners to lectures with fewer discourse signals. Jung argued that students may benefit from signalling cues in particular negative circumstances: such as when the lecturer does not make clear the overall structure of the lecture; when the lecture type is unfamiliar; when the students lack the relevant background knowledge; and when the lecture is unscripted.

Listener perceptions
Given what we know about the cognitive load borne by the second language listener in general, and international students in university lectures in particular, it makes good sense to examine the process of lecturing from the listener’s perspective. One feeling commonly expressed by second language listeners is an overwhelming impression of speed and a lack of control over the speaker; Rost (2002) and Graham (2006) discuss their students’ frustration with the speed of comprehension required in natural second language listening. In the case of international students in English-medium settings, there is evidence of differing perceptions of lectures - for instance, between undergraduates and postgraduates. Kim (2006) investigated East Asian postgraduates' perceptions of listening and speaking
requirements at a US university and compared the results with Ferris's widely cited earlier study of international students, of whom the majority were undergraduates (Ferris 1998). Only one-third of Kim's postgraduate respondents reported problems in listening and note-taking, compared with 80% of the mainly undergraduate students surveyed by Ferris. One possible reason for this difference in perceptions of listening and note-taking is that Ferris's undergraduates required considerable note-taking skills to do well in class examinations, while Kim's postgraduates were assessed through longer written assignments. Another could be that international postgraduates have already acquired note-taking skills through previous academic experiences, while undergraduates are still developing them.

Research into students' perceptions of the experience of listening to lectures in English is no longer limited to the stereotypical Anglo-Saxon setting. One of the recent changes in European universities has been the shift to teaching courses in English as a lingua franca, even in countries where the majority of staff and students speak a language other than English. In Sweden, for example, undergraduate lectures in many institutions are delivered in English, mainly for the sake of non-Swedish visiting or exchange students. This sort of linguistic accommodation can have unpredicted consequences, though. In a study of the teaching and learning of physics at the University of Uppsala, Airey and Linder (2006) found that when the lectures were in English, the Swedish students asked and answered fewer questions than had been the case in their first language, and also reported feeling less able to follow lectures and take simultaneous notes.

Multimodal lectures
It has become increasingly common for university lecturers to use PowerPoint as the vehicle for presenting input in visual form. Although there is a sizeable literature on multi-media - often, PowerPoint based - lectures, very few studies have explored the differential contribution of the various elements of multi-modality, defined as the use of four modes of expression: speech, writing, image and body language (Morell, García and Sanchez 2008). Morell et al. analysed the oral presentations of a group of 19 Spanish academics following a course in academic conference presentation in English. Among their findings were that the participants with higher levels of presentation skills foregrounded their use of visuals more than the other speakers, and also used a wider range of modes. 'These speakers... appeared to be more concerned with communicating their messages (than those at lower levels) and made an extra effort to combine modes to enhance the audience's comprehension' (Morell et al 2008: 564). One might assume that a rich combination of all four modes would, indeed, assist second language listeners to achieve an effective understanding of the intended message, but that issue remains to be investigated.

Morell's research in this and other areas of lecturing led to the production of a lecturer handbook (Morell 2009), recommending 14 strategies for promoting listener participation in lectures and therefore enhancing the prospects of successful comprehension:

- Explain the ground rules for the class
- Use clear 'micro' and 'macro' discourse markers
- Maintain an appropriate speed of speaking ('better to convey a little, well, than a lot, badly')
- Include visuals, but with caution
- Be aware of the four modes of communication in lectures (speech, writing, image and body language)
- Support and guide students' notetaking
- Make use of more referential questions and open questions
- Reformulate questions (to the listeners) and wait longer for an answer
- Encourage listeners to negotiate meaning
- Pay attention to feedback from the listeners (verbal and gestural)
- Vary the format and dynamics within a lecture
- Create a relaxed atmosphere
- Adapt lectures to listeners' current and future needs
- Include listener participation in course assessment
That list represents a useful summary of both the insights that research into academic listening has brought to the process of lecturing and also the degree to which we have moved on from the notion of the lecture as non-collaborative monologue (Lynch 2011). It also provided the starting point for the current project.

The survey: International Students' Perceptions of Lectures (ISPoL)

The ISPOL survey was intended to elicit the perceptions of lectures and lecturing among international students at the University of Edinburgh, in a context where many lectures are now multi-modal. I designed a short questionnaire asking students to indicate what they considered to be the three most important pieces of advice typically given to lecturers. The questionnaire addressed the international respondents as listeners with considerable - and growing - expertise in second language lecture listening. They were asked for the advice they would give Edinburgh lecturers to make their lectures more accessible. In this way, the orientation of the study was to consider international students not as the problem, but as the potential source of solutions.

The first item on the questionnaire presented 12 pieces of advice, adapted from Morell (2009), and asked the respondent to select the three they considered the most important and to rank them in order 1, 2 and 3. The second item invited respondents to comment, in their own words, on other points that they felt their Edinburgh lecturers should take into account when teaching them. The questionnaire was sent by email to international students (with an overall English proficiency level of IELTS 6.5-7.0) towards the end of Semester 1, when they would have attended 7-8 weeks of lectures. It was completed and returned by a total of 126 students.

Just over half the 126 respondents took up the invitation to provide additional comments on issues of lecturing or listening to lectures. Some provided extensive notes on several points, including one student who neatly summed up the situation of international students in an ESL context - and the motivation for the ISPoL study:

*I am a non-native speaker student. Because of this, sometimes lecturers’ speaking speed is so fast. In fact, the language problem might be a problem just for me. But the University is likely to increase foreigner students by about 30%, maybe.*

Findings

Item-ranking

If we turn first to the pieces of advice that respondents ranked in first place (Table 1), lecturers’ rate of delivery clearly emerges as the most important single factor in the students’ perceptions of lecture comprehensibility. **Control your speed of speaking** was chosen by practically twice as many students as the next most frequently first-placed advice.

**Table 1: Advice ranked in first place by international students (n = 126)**

<table>
<thead>
<tr>
<th>Advice</th>
<th>ranked first by ISs</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Control your speed of speaking</strong></td>
<td>27</td>
<td>21.4%</td>
</tr>
<tr>
<td><strong>Create a relaxed atmosphere</strong></td>
<td>15</td>
<td>11.9%</td>
</tr>
<tr>
<td><strong>Exploit all four modes of communication</strong></td>
<td>14</td>
<td>11.1%</td>
</tr>
<tr>
<td><strong>Adapt your examples for your audience</strong></td>
<td>12</td>
<td>9.5%</td>
</tr>
</tbody>
</table>
A number of students elaborated on their decision to rank speaking speed in first place. Here are two of those comments:

Some lecturers speak really very fast, and sometimes with very low voices, which is really hard for non-native English speakers to understand their meaning. As a non-native English speaker, I really wish lecturers can slow a little bit down their speed. And when talked about the important knowledge points, they can repeat and emphasize them.

One made the point that a slowing of lecturers’ delivery rate would be especially welcome to international students in the opening weeks of their programme of study:

Lecturers should not suppose questions as obvious or unnecessary, because it can be different in other contexts or in other countries. At the beginning of the semester it would be good if lecturers control the speed of the speaking.

The fact that more than one in five of the ISPoL respondents rated the control of speaking speed the single most important factor chimes with comments reported earlier (e.g. Rost 1994; Graham 2006; Lynch 2009) that second language listeners tend to ascribe their lack of understanding as due to excessive speed on the part of the speaker - in the subjective sense of ‘faster than they can comfortably cope with’ as listener.

If we widen our focus to consider the cumulative totals of items ranked in first, second or third place suggests a slightly different picture (Table 2).

<table>
<thead>
<tr>
<th>Advice</th>
<th>Frequency of selection</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control your speed of speaking</td>
<td>52</td>
<td>41.3%</td>
</tr>
<tr>
<td>Look out for signs of difficulty</td>
<td>46</td>
<td>36.5%</td>
</tr>
<tr>
<td>Adapt examples for your audience</td>
<td>39</td>
<td>30.9%</td>
</tr>
<tr>
<td>Create a relaxed atmosphere</td>
<td>35</td>
<td>27.8%</td>
</tr>
</tbody>
</table>

While speed of speaking was still the most frequently selected source of concern for over 40 per cent of the ISPoL respondents, the next most popular piece of advice was Look out for signs of difficulty. It appears that international students at Edinburgh expected their lecturers to be alert to clues that individuals in the audience are having problems in following what is being said.

Lecturers’ selection and/or adaptation of examples emerged as the third most frequently chosen advice in Table 2 and elicited a range of individual comments:

Giving students handouts - Do not just copy the examples given from the textbook already. If I couldn’t understand the examples from textbook, and lecturers continue to use the example from textbook instead of giving other examples, how could I understand?

I would like to say lecturers may pay more attention on the culture diversity in the classes, especially when they are giving example.

If the lecturers would like to give some examples that might be unfamiliar with Asian students, they had better explain more about it beforehand, because of culture difference.

Interestingly, the comments made on Create a relaxed atmosphere, the next item most frequently ranked 1-3, included two potentially conflicting views:

Lecturers should be humorous to create a relaxed atmosphere for the students.

Please do not always… tell jokes that are only be understood by British people or Europeans, because not everyone could understand, or even catch up your… jokes all the time.

Another student appeared to feel that the atmosphere in lectures can be too relaxed and lacking in rigour:

Some lecturers are too nice to students, aiming at encouraging interaction. Not all views proposed or answers given by students are correct, but almost all lecturers tend to give positive remarks as encouragement. I think lecturers could give encouragement on independent thinking and identify merits in such opinion, then give clear comment and
explanation why such opinion is right or wrong, or a good point needs further exploration. 
Just to avoid causing bewilderment among other students.

Volunteered suggestions

The points made in the open comments section of the ISPoL questionnaire raised several 
issues not covered in the typical advice listed in the first part: timing, ancillary materials to 
support the lecture, use of language (vocabulary and intonation), and lecturers' 
assumptions.
The comments on timing ranged from advice to lecturers to be realistic about what can be 
covered in the time available (i.e. a lecture hour seen as a relatively short time) 
It hinders understanding when lecturers try to tackle every single aspect of a topic within the 
50 minutes of a lecture. It would be more effective to focus on two or three salient aspects 
which then actually get through to students, instead of just leaving them confused by 
mentioning whole aspects just in a half-sentence for lack of time.

to the problem of maintaining attention for the 50 minutes (i.e. a lecture hour as a relatively 
long time):
I think the lecture duration is quite short, all my lectures last for 1 hour only. It's like tutors will 
pick up the essence of some thoughts and concepts, and put them in one lecture each time, 
but I just don't absorb too much in limited time. 
Closely connected with the notion of the lecturer's need not to try to cover too much were 
requests from students to provide ancillary material that they could access either before or 
after the lecture: 
I would say that WebCT is a very useful tool to guide and prepare students during the 
course, as well as to have further research based on student’s interest. From my courses, 
one lecturer gives very thorough materials in the WebCT, including handouts containing the 
reading materials (in hierarchy: must read, read if we have more time, and for specific 
interest only) and it also contained objectives of each courses.
There were some interesting comments on lecturers' use of English. Two students 
expressed a similar preference for 'simple' or 'informal' vocabulary: 
Please use simple and common words as much as possible. 
Some of the lecturers use very formal language (equivalent to academic written language) 
throughout the lecture, I personally find it exhausting trying to concentrate in order 
understand everything that has been said. 
The last issue mentioned by student respondents can be summarised as Unwarranted 
assumptions: 
Do not assume all students have the same background (knowledge) on the subject matter. 
Be more clear about what you are expecting, and please let student know 
Finally I pass on, without comment, this student's observation, as a reminder that lecturers 
do not have a monopoly of unwarranted cultural assumptions: 
Both the pronunciation and body language of a teacher do matter for students. For example, 
most of the students lose interest for a lecture which is given by a teacher with strong 
Scottish accent.

Discussion

As we saw in Table 2, the four most frequently pieces of advice selected by the international 
students who participated in the ISPOL survey were: ‘Control your speed of speaking’; ‘Look 
out for signs of difficulty’; ‘Adapt examples for your audience’; and ‘Create a relaxed’ 
amosphere’. I will briefly discuss each of them in turn, and then draw together the 
commonalities.

Speed of speaking 
The advice to lecturers to control how fast they speak was predominant in the survey 
responses. It was the advice most commonly selected both in rank 1 and also in ranks 1-3.
This is not surprising, given the widely cited view among learners that their main problem in listening is the rapidity of the spoken language. More generally, the fact that the spoken language that students encounter in lectures is normally temporary (unless recorded) and may require an immediate response from them, in the form of written notes, may create the overwhelming impression of having too little time to process what they hear and being able to exert little control over the speaker, apart from the potential opportunity to ask questions. As I have discussed elsewhere (Lynch 2009), the terms commonly used to describe the process of coping with natural speech in a second language tend to emphasize physical pressure (load, burden, barrier, and obstacle), transience (transitory, ephemeral, and temporary), lack of clarity (buzz, fog, fuzzy, and blur) and the sense of being overwhelmed (by the stream, flood, torrent, and cascade). On the other hand, it is worth recalling that the listener's perception of rate of speaking arguably reflects their understanding of what they have heard, rather than the other way round (Flowerdew 1994). When we hear someone speaking a completely unfamiliar language, we tend to perceive that it is being spoken more rapidly than a language with which we are familiar.

One strategy would be to remind lecturers of the need to speak at a rate appropriate for their audience and setting - but this is easier said than done. Griffiths and Beretta (1991) found that native-speaking English teachers working at a university in Oman tended to lecture at about 3.5 syllables per second, regardless of the English proficiency of their audiences, yet the same speakers were able to adapt their speaking rate when in conversation with a less proficient user. The key seems to be that speakers 'lose their sense of what is appropriate when the feedback is taken away' (Hincks 2010: 17), as may happen, for example, in lecturing to a large audience in a lecture theatre, where it is more difficult for the speaker to maintain eye contact with individual listeners - which takes us on to the second piece of advice.

Signs of difficulty

As I noted earlier, many of the students in the survey chose to advise lecturers to be on the lookout for indications that members of their audience are not following, but none of them specified what those signs might be. Although one might expect visual cues of non-comprehension to vary between cultures, there may be a 'core' of non-verbal cues, such as frowning, blank looks and head shaking, which are universal. There appears to have been very little research into visual signs of non-comprehension in lectures, with the majority of studies of such signals focusing on the feedback behaviour of pupils in school lessons (e.g. Webb et al 1997) or of adult learners in second language classes (e.g. Liu 1992; De Courcy 1997). In both these settings, the number of learners and the size of the room make it easier for the teacher to monitor the listeners' signals of attention and comprehension than in the lecture theatre. As university lectures typically involve a larger audience and venue, lecturers may not be able to identify individuals' facial expressions and have to rely instead on more visible signs of comprehension difficulty, such as students turning to their neighbour (or their neighbour's notes) when they have not heard or grasped the current point.

Using suitable examples

As lecturers we need to be aware both of the need to avoid unwarranted assumptions of shared knowledge and also of the extent to which their favourite examples may demand cultural 'insider information' and may exclude international students from the circle of understanding. Two examples reported from British university lectures that would almost certainly be lost on second language listeners - and some native listeners, too - are a reference to Edward the Confessor in an engineering lecture (Hutchison and Waters 1981) and to Mr Micawber in an economics lecture (Tadros 1984). I am not suggesting that lecturers should use no examples or analogies, but that we have to choose them with care. Lecturers should be prepared - in two senses, i.e. trained and willing - to think through the background knowledge that their illustrations require.

From a technological point of view, it is now that much easier for lecturers to find illustrations, in the literal sense, to demonstrate in a visual and immediate way a point that
might have been difficult to explain verbally to earlier generations of students. So being aware of the importance for second language listeners of visual support, including PowerPoint and the interactive whiteboard, could be another key element of the lecturer’s repertoire.

Relaxed atmosphere

The fact that the advice to create a relaxed atmosphere was the third most frequently selected in the ISPOL survey may surprise some readers. Others may be sceptical about the need for relaxation and may be more inclined to aim in the opposite direction, i.e. to promote focused attention. To some extent, it depends precisely what each individual student understood by ‘relaxed atmosphere’, but in several cases it is clear that students were referring to something very specific: the extent to which they perceive a lecturer is genuinely encouraging the audience members to ask questions.

The whole area of student questions to lecturer is culturally complex. British students who ask questions in lectures risk being regarded (by other British students) as ‘stupid, attention seekers or creeps’ (Gibbs,Habeshaw and Habeshaw 1987: 155). For many Asian students, such as those with a Confucian heritage background, their first culture norms of respect for authority in general, and the teacher in particular, can predispose them not to venture a question because it could cause either party to lose face. Moreover, for the international student any reluctance to ask questions in public may be compounded by the particular syntactic complexities of English interrogatives. Chinese students, for example, would prefer not to ask a question at all than to ask an ungrammatical one (Jin and Cortazzi 1996).

Given these tensions over asking questions in lectures, we need to explore practical ways in which lecturers can increase the chances that their students will ask questions when they realise they need to. One approach I have discussed is to recommend that when preparing material for our lectures we should plan two or three ‘question pauses’ - short breaks of 2-3 minutes each, when we encourage students to raise queries about what has been said up to that point (Lynch 1994). By clearly establishing a space for question-asking, we provide an opportunity for doubts and queries to be raised.

A more fundamental element in creating a relaxed atmosphere is to be explicit about our own preferences, or ‘ground rules’, for questioning: whether we encourage or expect students to raise questions, whether they should ask them during the lecture, as they arise, or during question pauses, or afterwards. Such matters may appear obvious and trivial, but the evidence from the methodological literature and students’ comments is that this sort of scene-setting at the start of a lecture course is unusual. Typically, students are left to work out individual lecturers’ differing preferences (Shaw and Bailey 1990).

Conclusion

The main lessons emerging from the ISPOL survey are that international students see a need for lecturers to speak slower, to keep an eye out for signs of students’ non-comprehension, to take care over selecting accessible examples, and to create opportunities for interaction around students’ questions. At first sight, these might appear relatively uncontroversial, but - assuming that lecturers are open to suggestions that they reduce their speed of speaking and include question pauses in their lectures - the implication of doing so is that we have to be prepared to cover less content in the conventional 50-minute lecture. Hincks (2010) has argued that one consequence of really taking international students into account is that one has to reduce the quantity of what is delivered in lecture form. One way to do that would be to adopt the recommendation from ISPoL respondents that more material should be made available online, as preparatory or follow-up reading, so that the students help themselves by supplementing the content that the lecturer can cover in the
conventional 50 minutes. Shifting material online would also create space in the lecture for question pauses.

The responses to the ISPoL survey seem to suggest a need for remedy as well as prevention. In addition to trying to 'design out' likely sources of comprehension difficulty, such as speed of speaking, we should 'design in' ways of encouraging students to ask for clarification when communication fails or half-succeeds. Universities should of course continue to run pre-sessional and in-sessional language courses for international students, in order to help them develop their English language skills, especially of listening and note-taking, but we need also to support lecturers to meet the demands of teaching increasingly international classes. Professional development sessions that highlight key elements of intercultural teaching, such as appropriate illustration and the opportunity for clarification, should bring benefits in making university lectures more accessible - and not only for international students.

References
Cambridge: Cambridge University Press
Hincks, R (2010) Speaking rate and information content in English lingua franca oral presentations, English for Specific Purposes 29, pp 4-18
Morell, T (2009) *Como podemos fomentar la participación en nuestras clases universitarias?* (How can we encourage participation in our university classes?) Universidad de Alicante, Spain
Rost, M (2002) *Teaching and Researching Listening* Harlow: Pearson Education
Promoting a community of learning in an online course: how important is social presence?

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Abstract

By reviewing an online leadership course offered by Nursing Studies at the University of Edinburgh, this paper focuses on how a community of learning can be promoted online and how the use of an icebreaker, known as the Jelly Baby Tree (JBT) can be an effective tool for this. The JBT is used here to engage students in their learning and assist with building social presence by fostering the development of an online community. Social presence is recognised as an important factor affecting the development of a sense of community among learners, which in turn can impact on reducing attrition. Understanding how tools can impact on students contributes to a greater awareness of how Web 2.0 technology can be used within twenty first century Higher Education.

1 Introduction

Social presence has been defined as "the ability of participants in a community of enquiry to project themselves socially and emotionally as 'real' people through the medium of communication being used" (Garrison et al, 2000, p94). It is recognised as an important factor affecting the development of a sense of community among learners (Rourke et al, 1999; Aragon, 2003). Positive social presence correlates with students' positive perceptions of their learning (Picciano, 2002) and is a significant predictor of a student's overall satisfaction (Tu, 2002). This is important for many reasons including attracting and retaining students (Rovai, 2002). This paper will explore the use of an ice-breaker tool, known locally as the Jelly Baby Tree (JBT) within an asynchronous online course and will demonstrate the positive effect this had on community building, course engagement and social presence. Moreover, the evaluation of the JBT over several iterations of the leadership course within Nursing Studies demonstrates that this tool can be used successfully in both face-to-face (f2f) and online environments.

Exploring the significance of the JBT and its usage in an online course provides a greater awareness of how Web 2.0 technology can be used within twenty first century Higher Education. This is significant, as the University of Edinburgh (UoE) is expanding its online provision of taught postgraduate programmes. Moreover, the University's Strategic Plan 2012-2016 sets out a number of objectives, one of which is to combine "recognised teaching excellence with an outstanding student experience both on-campus and online" (p.25). Therefore, the use of innovative approaches to teaching and learning is at the forefront of online programme delivery.

2 Methodology

The analysis for this paper draws from existing findings (Garrison et al., 2000; Carson 2012a, 2012b), as well as qualitative and quantitative data from a number of iterations of leadership courses delivered within Nursing Studies (NS) at the UoE between 2008-13. The following discussion will focus specifically on the 2012-13 online MSc Leadership course. Fourteen students enrolled on this course. Figure 1 illustrates the gender split of this cohort and Figure 2 shows the percentage of home versus international students. Of the home students four (28%) were professionals who were undertaking the course as part of their continuing professional development (CPD). Of the other home students one (7%) was full
time and the other three (21%) were part time. The international students were all full time. The international students were younger (26-29 years; mean = 27) than the home students (30-47 years; mean = 36) and the CPD students (28-50 years; mean = 42).

This varied cohort will have different needs and expectations from an online course. Consequently, they require a facilitative learning environment which is flexible and fit for purpose. It is for this reason that the online approach can be well suited to the needs of different student profiles.

![Gender split](Figure 1: Gender split (2012-13 online Leadership course))

![Home & International students](Figure 2: Home & International students (2012-13 online Leadership course))

2.1 **Use of the Jelly Baby Tree in a face-to-face context**

The JBT has been used in many contexts as an icebreaker by the course leader. Within the University, it has been used successfully in NS. During each iteration of the f2f MSc Leadership course (2008/9-2010/11), the JBT (see Figure 3) was introduced to the students and used by the instructor as a tool to help and encourage the students to state where they saw themselves in terms of their current leadership position and to establish where they were on their leadership 'journey'.

The JBT was then used each week to gauge how the students were feeling in terms of their involvement with the course and how they perceived themselves in terms of how well they were balancing their various academic, professional and personal commitments. At the start of the class, each student was asked to identify with a particular Jelly Baby and use this to articulate and share their feelings with the rest of the group. This meant that every student had spoken aloud and shared a personal reflection within the first few minutes of the class. In this way, the JBT was being used as a conventional ice-breaker which is what it was originally designed for. Significantly, it was found that, having done this, the students were more inclined to contribute to discussions and ask questions during the remainder of the class. A sense of community was created and the students were able to offer and receive support from both their peers and the instructor. Every year, student course evaluations have consistently identified the JBT as one of the best features of the course and comments such as "The jelly baby tree was very, very helpful" and "The jelly baby tree made you feel cared for within the group" appeared frequently on these evaluation forms.
2.2 The need for change

The UoE is committed to increasing opportunities for online distance learning (ODL). In addition, the UoE Strategic Plan 2012-2016 has highlighted the need to support Postgraduate Taught Students (PGT) and sets out three strategic goals for excellence in education, research, and innovation. Accordingly, the evolving area of online distance learning requires staff to deliver quality and excellence to students.

NS wanted to recruit more postgraduate students by expanding the number of programmes offered and by making existing programmes more attractive. The first step in this objective was market research. The results indicated that prospective students were looking for flexibility, whilst balancing various commitments, offered by online courses. This is further supported by studies focusing on nursing students who participated in online learning (Ali et al., 2004; Sit et al., 2005). As a result, the course leader was asked to redesign the on campus f2f leadership course so it could be delivered online.

2.3 What do nursing students want from online learning?

Consideration was given to Sit et al.'s (2005) study of an online learning initiative within a post registration nursing degree that looked at the student experience of online learning. While 56.7% of respondents to their questionnaire were satisfied or very satisfied with the online learning experience, 63.3% listed the biggest hindrance to their learning as inadequate opportunities to establish peer support. Similar findings were obtained from the open-ended questions in their study where the most frequently identified hindrance to their learning online (36%) was given as the inadequate opportunity for human contact and interaction. This can be captured by a quote from one of the respondents: "Sometimes it is boring to study on my own. It seems that I am talking to the computer...I felt lonely and not sure if I was on the right track." (Sit et al 2005, p146). Suggestions for future improvements included building an infrastructure into the online design that would facilitate peer support. Based on their findings, Sit et al (2005, p146) suggested that "innovation and creativity are needed in enhancing human-machine interface communication to facilitate peer interaction, support and socialisation in the online learning process (Bentley et al, 2003; Espeland and Inrehus, 2003; Kozlowski, 2002)."
In another study of graduate nursing students' experiences of online learning, social isolation was found to be a significant problem. One student reported "You felt like you were just all alone. I just thought I was typing into space or something" (Ali et al 2004, p112).

2.4 Use of the Jelly Baby Tree in an online context

Before undertaking the design of any online course it is important to have some understanding of the needs of online learners and also if possible to be aware of any specific needs of the student cohort being taught. Consequently it was important not only to review what was personally known and understood about online learning (Carson, 2012a) but to also review specific literature on online learning in postgraduate nurse education.

It was also important to think very carefully about whether what was effective f2f would work online (Carson, 2012a, 2012b). Evidence from Car-Chellman and Duschastel (2001) indicates that simply transposing a traditional course to an online medium runs the risk of diluting the content and leads to an unsuccessful learning experience. White (2003), states that an effective online course is designed differently from a f2f course while the UoE's Manifesto for Teaching Online (2011) states that "The possibility of the 'online version' is overstated. The best online courses are born digital".

The intention was therefore to retain what had worked well f2f but to avoid falling into this trap. The question which arose in relation to the JBT was therefore 'Can teaching strategies that have worked well in a classroom setting be successfully transposed to an online environment?' i.e. 'Would the JBT work online?'

As has been demonstrated, while the JBT had successfully been used in the f2f leadership courses it had never before been implemented in an online course. Its selection was seen as an innovative approach to encourage social presence within an online context and it was hoped that its use would help to support and develop the PGT students taking this course.

One of the first things was to redesign the JBT (see Figure 4). This was done by removing some of the Jelly Babies, rearranging the groupings of others, numbering them all and adding colour to make it more visually appealing. The visual element online is important as only two of the five senses are present here and so the visual dimension can become the prominent sense in which to engage with others. Visual content can be used as indicators for emotion, for example the use of emoticons in discussion boards. In addition visual cues, such as symbols or images can be used as a signposting mechanism within the virtual learning environment. There may also be activities, such as the JBT which use visuals to engage with the students. Therefore, the visual element within online distance learning can provide a means in which to develop social presence and community building (Garrison et al, 2000). Importantly, the visual content in online courses contributes towards a better student experience. Providing a means by which to build an emotional and behavioural aspect into the online experience further highlights the important place that the element of trust has in activities where disclosure of feelings (and emotions) directly relates to the building of community, (Ravenscroft, 2005, p.137), as is found in the JBT forum.

The setting up of the JB forum included a separate weekly discussion board with a single thread which was called 'The Jelly Baby Tree' (see Figure 5 for a breakdown of the number of posts each week). The idea was that students would be introduced to the JBT during the induction to the course and thereafter, as before, would be asked each week to use the JBT to reflect on where they were and how they were feeling (see Box 1). It can be seen from this that the Jelly Baby forum was conceptualised differently from the main discussion board as it was seen as a place for developing community through social interaction. The
instructor(s) would do the same in order to 'model the way' and connect with the students thereby fostering a sense of social presence for themselves as well.

**Box 1: Guidance on how to use the Jelly Baby Tree**

Please have a look at the *Jelly Baby Tree*. You will see it consists of a series of numbered 'Jelly Babies' in, on and around a tree. Some appear confident, happy and relaxed while others appear to be less content. Some are giving and some are offering support. Some are alone while others appear in pairs or in a group. Some appear to be solitary and/or isolated while others appear to be part of a crowd. Each week we will be asking you to have a think and reflect on where you are currently on your own personal leadership journey in terms of: how you are feeling about being/becoming a leader how well supported you are feeling on this course by both your fellow students and the course leaders what effect any external factors (work, home, relationships etc) have had on your week and how this might be impacting on how you are feeling today We will ask you to do this by selecting the coloured Jelly Baby that best corresponds to how you are feeling and asking you to provide a short summary on this week's discussion board once you have considered the above.

The course content was divided into weekly topics and each week had its own discussion thread(s). Excluding the Jelly Baby posts, which were not assessed, all other discussion board posts, which were structured and focused on the completion of set activities as part of the course contents, were marked each week using a rubric and the marks from these posts contributed to 40% of the students' overall course marks. At the end of Week 5 these marks were shared with the students in the form of formative feedback. The number of posts each week is shown in Figure 6.

3 Discussion

The following discussion focuses on three areas in relation to the JBT, namely the importance of online community and engagement; the discussion boards; and social presence in relation to learning. The implementation of this ice-breaker tool enabled a sense of social presence to develop and as a result improved the student experience and engagement on the online Leadership course.

3.1 Importance of Online Community & Engagement

One of the challenges of online courses is the sense of isolation which can contribute to attrition rates. This problem has been addressed by many, such as Patterson and McFaddon (2009), who state that attrition rates are higher in online courses. Therefore, developing a course which fosters a sense of community can help to reduce feelings of isolation (Gerlock and McBride, 2013). Moreover, there is evidence to suggest that both retention and satisfaction rates improve if online learners experience a sense of community (Ali and Leeds, 2009; Lee et al, 2011; Tirrell and Quick, 2012).

These factors were considered when developing the online Leadership course. The course delivery tried to avoid the notion that web-based learning can leave students feeling that they have been communicating with machines and not human beings. The aim of using the JBT was to build a sense of community and thus increase engagement by providing a forum through which to foster the development of an online community. If this is looked at more closely, a sense of community develops when a common interest or environment is shared (Dawson, 2006). Baran et al (2012, p436) state that "Online teachers should be encouraged to promote community building around online teaching."
Rovai (2002, p4) defines classroom community in terms of spirit, trust, interaction and commonality of expectations and goals. The element of trust should not be underestimated in an online course, as it is significant for building and maintaining communities. The JBT exercise further reinforces the importance of trust as it exposes the students to a reflective and ongoing shared group activity. This is articulated by the following student comments from 2011-12 (sic):

"I share your feelings too. I quite appreciate the level of bonding despite the differences in space and time and the vulnerability based trust which makes communication easier. I took on this course as a challenge because I dislike social science courses which are usually abstract and non specific. But I must say that nine weeks down the line, I am glad I did. The support from my course mates and facilitators has been excellent and I feel like Jelly Baby 1 and 4."

"It is really nice knowing that others are working hard too. It is so overwhelming at times and then I read your posts and realize that there is so much dedication and everyone cares for each other even though we don’t see each other eye to eye. That encourages me every day. Come to think of it, I feel someone pushes me up the tree when life gets hard."

Preliminary analysis suggests that students have found the JBT to be a much valued aspect of the course. Direct feedback from students on the online course (2011-12) confirms this:

"I think the Jelly Baby Tree is the best bit of this course. Amidst all the pressures of a full-time job and a part-time course I found this to be therapeutic and gives the course the ‘human touch’."

"I have enjoyed the Jelly Baby forum, sharing our thoughts together, I did not feel alone"

"I’ve done at least 3-4 courses on leadership etc so to be honest I’ve got quite bored with them. Thus my expectations were low - but I’m pleased to say they were easily exceeded - mainly because I think everyone offered something of themselves (rather than sterile theory) in the Jelly Baby Tree. Life is so much more fulfilling when everyone is real (even in a virtual environment!)."

"Coming from a research-based background where one is quite insular, I felt I had very little to contribute as most times I felt like Jelly Baby 1, always being helped up the tree by all of you (students and lecturers) through your wisdom and experience which shines through every topic. Best of all is the "jelly baby tree" -my stress relief and where I found so much support! A place where I felt I could air all, and learnt so much again!

The comments, above, highlight the significant contribution the JBT is making in relation to the sense of connection felt by the students and the formation of an online community. Consequently, the sense of an online/offline paradigm is lessened and students here, unlike those in Sit et al.'s (2005) and Ali et al.'s (2004) studies, have achieved a sense of community. As the Connected Learning Manifesto (2012) states: "Connected learners are never lonely" and this is supported by the UoE Manifesto for Teaching Online (2011) which says "Community and contact drive good online learning".

3.2 Discussion Boards

The JBT was used in conjunction with the discussion board within the Virtual Learning Environment (Blackboard Learn). The discussion board enables participants to post messages and respond to others asynchronously. Understanding how discussion boards
can be implemented to develop social presence and community is fundamental within this type of group activity.

There are a number of benefits to using discussion boards for this type of activity, including the flexibility in which students can post comments at a time which suits them; enables students to critically evaluate their response before posting; and provides a forum in which to build a community online.

During the ten week leadership course there were a total of 274 posts to the Jelly Baby thread. Figure 5 highlights the weekly breakdown of these posts. All fourteen students not only commented regularly themselves (which is requested) but many also responded to each others’ posts. It could be argued that the success of the JBT can be illustrated here by the volume of posts alone.

![Figure 5: Number of posts per week to the JBT (2012-13 online Leadership course)](image)

![Figure 6: Number of posts per week to DBs (2012-13 online Leadership course)](image)

Figure 6 shows the activity each week on the discussion boards (DBs). As shown, this activity was maintained throughout the entire course with the majority of students (71%) posting multiple comments each week. Four of the fourteen students on nine occasions between them did not post (0.06%), which equates to 9/140 weeks where they did not post. The circumstances for this varied but included special circumstances, being on annual leave or on night shift.

Furthermore, as was mentioned earlier, the JBT activity on the discussion boards was not assessed and so it is worth noting that the motivational drivers for students to post to the discussion board were likely to be intrinsic rather than extrinsic, which is often not the case (Ravenscroft, 2005, p.137). This further highlights the significance that this activity had for the cohort and the importance that they placed on it.

3.3 Social Presence and Learning

Positive social presence correlates with students’ positive perceptions of their learning (Picciano, 2002) and is a significant predictor of a student’s overall satisfaction (Tu, 2002). Fabro and Garrison (1998) found social presence to be crucial in establishing a critical community of learners. This is important in terms of attracting and retaining learners to online courses (Rovai, 2002). In 2012-13 the online leadership course was completed by all fourteen students. During this time they remained engaged with the JBT and contributed to the weekly discussion boards. Garrison et al (2000, p.95) argue that cognitive presence is more easily sustained when a significant degree of social presence has been established (Garrison, 1997; Gunawardena, 1995). That is, socio-emotional interaction and support are
important and sometimes essential in realizing meaningful and worthwhile educational outcomes.

The learning obtained from the reflective practice and participation with other students contributes to the student transferring skills from an online context to the offline context. As a result of this they implement leadership skills into other environments and take responsibility for their own learning. The correlation between reflective practice and building a community through social presence marks a qualitative difference between a collaborative community of inquiry and a simple process of downloading information (Garrison et al., 2000, p96).

4 Conclusion

This paper has focused on the importance of social presence in an online course and how the innovative use of an ice-breaker tool, known as the JBT has made a significant contribution to the formation and maintenance of an online community within an MSc Leadership course in NS. The findings indicate that the JBT has directly contributed to student satisfaction and improved their engagement with the course thereby enhancing the student experience. The volume of posts and comments from the students corroborate this conclusion. Student comments highlight that the JBT provides a means through which they feel present and connected with both their fellow students and instructors:

"When I started this course I was not quite clear whether I would manage the online environment considering that I would never see my classmates or tutors hence and yet I wanted a personal touch. Honestly, I did not understand the concept of the jelly baby tree and I did not see where the tutors were heading with this. Looking back, I must say I am so overwhelmed with the encouraging words from my classmates whom I have never met. No words can ever state how grateful I am for the jelly baby forum."

"This course has been a rewarding and enjoyable one. There is so much to be learned. When I started the course, I thought oh leadership-I have done so many of those, it's going to be boring but it truly was not. The jelly baby tree was really inspiring. The support from fellow students and teachers were remarkable."

It could be suggested that the JBT has allowed and encouraged students to be reflective and to feel able to disclose personal information about themselves and their leadership style in a safe and supportive environment. Significantly, in a diverse cultural group the JBT appears to have been perceived as a neutral, safe and non-threatening means through which students could connect with each other without misunderstandings and believe it has helped to foster a sense of social presence thereby promoting a community of learning in an asynchronous online course.

It is hoped that by disseminating the findings from this study that there will be further insight gleaned into the development of online courses and the importance that social presence has in relation to building communities.

5 Bibliography


Aragon S R (2003) Creating social presence in online environments. New Directions for Adult and Continuing Education 100 57-68

Baran E, Correia A-P and Thompson A (2011) Transforming online teaching practice: critical analysis of the literature on the roles and competencies of online teachers. Distance Education 32(3) 421-439

Bentley G W, Cook P P, Davis K, Murphy M J and Berding CB (2003) RN to BSN program: transition from traditional to online delivery. Nurse Educator 28(3) 121-126


Carson M N (2012a) “Lost in Translation: Can a face-to-face taught Masters course be equally successful online?” Health and Social Care Education Issue 1 (Winter 2012) 17-18

Carson M N (2012b) From Expert to Novice and back again? A practical and personal account of transferring a face-to-face taught Master’s course in leadership into a fully online asynchronous one for distance learners. 11th European Conference on E-learning; Conference proceedings, Groningen, The Netherlands


Dawson S (2006) A study of the relationship between student communication interaction and sense of community. The Internet and Higher Education 9(3) 153-162


Leong P (2011) Role of social presence and cognitive absorption in online learning environments. Distance Education 32(1) 5-28


Rovai A P (2002) Development of an instrument to measure classroom activity. *Internet and Higher Education* 5(2) 197-211


Wade C E, Cameron B, Morgan K and Williams K C (2011) Are interpersonal relationships necessary for developing trust in online group projects? *Distance Education* 32(3) 383-396

'I was not expecting that this would be so effective':
The case for postgraduate student mentorship

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ABSTRACT: Over and above the formal curriculum that every postgraduate (PG) student undergoes as a critical part of his/her disciplinary training, we argue that informal mentorship for PG students are just as essential. University curriculum has traditionally privileged disciplinary content over various other types of critical literacies (such as critical thinking and communication skills) and the basic competencies that many (successful) academics take for granted, These are critical skills that many supervisors "do not have time for", and yet they are the kind of skills that many PG students need. Our paper discusses a one-year-old workshop series that provides informal PG mentorship from the platform of a teaching and learning centre, and asks: How does this form of informal mentorship offered by a Teaching and Learning Centre fit (or not fit) current understanding of PG mentorship?

Would such mentorship be better served by faculties/departments?

Introduction

In many universities, the formal curriculum places great emphasis on imparting disciplinary knowledge. A few decades ago, such an emphasis is an accepted practice. However, both the times and university practices have changed. In the past, university graduates were expected to have sound and full command of subject knowledge. Today's world however, recognizes that much of subject content becomes rapidly obsolete, and instead calls for graduates who have the more enduring life skills such as critical thinking and good communication skills. The university has moved to some extent with this shift in the new requirements of the global workplace through emphasizing applied skills in its curriculum but judging from the local experience of many postgraduate students and the feedback we have gathered from employers, the training for life skills still has some ways to go in many educational institutions. In spite of the professed needs of the global workplace, the approach adopted in many universities today is to devote much of the formal curriculum space to disciplinary training rather than to infuse the curriculum with the critical literacies of thinking and communication, skills that many of us recognize are important. The reasons often offered include a crowded curriculum space that is not able to accommodate the teaching of critical skills in addition to the requisite disciplinary content. Some instructors readily admit to have neither time, nor inclination, and especially with respect to communication skills, the relevant expertise, to teach these critical literacies. At the same time, we have abundant anecdotal evidence that many students are lacking in such skills, and many would like to be in receipt of such support and guidance. And this lack is confirmed through regular feedback exercises with employers.

This paper provides one way - a postgraduate workshop series — in which we have attempted to address this gap in the formal curriculum, and discusses the nature, value, and place of postgraduate mentorship as an avenue for imparting critical skills.

Answering the need for mentorship: The Postgraduate Student (PGS) Workshop Series

As explained above, the gap that is detected between the formal curriculum and the postgraduate students' need for critical skills training is the primary motivation that led us to provide a platform to address this lack. In our capacity as people directly involved in teaching
and learning, we often receive feedback through various channels about the need among our postgraduate (i.e., Master, PhD) students for academic mentorship in general, and training in critical skills in particular. In the August Term of 2011, we answered this need by introducing a postgraduate student workshop series (that we called ‘PGS’), for any postgraduate student in our university who needs help in developing specific skills. This section provides details of this series.

PGS started modestly with the introduction of six sessions that took place between mid-August and mid-December 2011, as follows:

<table>
<thead>
<tr>
<th>Session</th>
<th>Date of Session</th>
<th>Title of Session</th>
<th>Number of participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>17 August</td>
<td>PGS Welcome Tea</td>
<td>estimated 180</td>
</tr>
<tr>
<td>2</td>
<td>9 September</td>
<td>Planning &amp; managing your postgraduate journey</td>
<td>&gt;300</td>
</tr>
<tr>
<td>3</td>
<td>19 September</td>
<td>Identifying a research topic &amp; managing the supervisor-supervisee relationship</td>
<td>150</td>
</tr>
<tr>
<td>4</td>
<td>14 October</td>
<td>Effective oral communication: Know it, use it, ace it!</td>
<td>150</td>
</tr>
<tr>
<td>5</td>
<td>2 November</td>
<td>Taking an analytical approach to thesis writing</td>
<td>&gt;100</td>
</tr>
<tr>
<td>6</td>
<td>13 December</td>
<td>Components of a research paper</td>
<td>&gt;90</td>
</tr>
</tbody>
</table>

Table 1: PGS 2011 (August semester)

Our teaching and learning centre (called CDTL) has been offering regular staff and student workshop series for over two decades but we have not had a student workshop series that is dedicated to the slightly over 10,000 postgraduate students enrolled in our university. The PGS is therefore a first for CDTL. We launched this new series on 17 August 2011 by extending invitations to all postgraduate students to join us for a tea reception. Though this is an open call, for logistical and budget reasons, we had to restrict the number of participants to a maximum of 400 students. All 400 places were swiftly taken up, but on the day of the tea, close to 200 showed up. Though this number was admittedly only half of available capacity, this was a good start, given the large number of student activities happening all around campus at the start of the August term. More importantly, we got the word out about the PGS, and we explained our plan for the semester ahead (see Table 1 above).

The topics in Table 1 were identified by taking the following matters into consideration: Our first priority was to identify a few topics that would address key issues. We wanted to have on average, one session every one or two months, spread across the 13 weeks of a semester.

An important factor was the availability of colleagues who were both able and willing to facilitate a session.

The capacity allowed for each session was dependent on facilitator’s preference and the availability of a suitable venue.

Happily for us, within a month or so of planning, we were able to confirm the slate that is reflected in Table 1. Some of these sessions were held in a lecture theatre that could accommodate between 150 and 400 participants (e.g. sessions 2 and 3 above). Some had smaller numbers because the facilitator preferred a smaller, ‘cosier’ group (e.g. sessions 5 and 6). In this first offering, we did not plan any of the above sessions to address discipline-specific issues - they were pitched at students from all disciplines. In total, the above sessions brought together close to 1,000 PG students (non-unique count) for about two hours per session, and in all, 10 colleagues were involved in putting up the first slate.

Students’ feedback at this inaugural August series included the following:

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44 In subsequent offerings, we occasionally offered discipline-specific sessions, to address some students’ feedback that a more directed, customized session would be more productive.

45 We did not ask for feedback at the tea reception (S1) – instead we invited students to tell us what topics/issues they wish us to offer for future PGS.
Very informative! It is very nice for the profs to share [their] personal experience with us as [their experience] are all very relatable. The structure of the programme is also very digestible (S2).

More workshops on this topic in future (S2).

All in all, the programme was so helpful. The panel members were informative and inspiring. All that needs to be improved with regards to the programme is increasing the frequency (S2).

Having faculty members representing all the faculties would be more beneficial for the students (S3)

The content is too general. I am expecting more specific skill on special situation of oral communication (S4).

I think the session was well-covered and I learnt a lot! It would have been good to expand this session as a full module/half module as I think the actual practice of writing and planning thesis organization will enhance learning and understanding (S5).

Thank you! This was so beneficial (S6).

The session was great; there was sufficient interaction with the speaker. He was very articulate, informative and the sharing was extremely helpful (S6).

As is easily discernible from the above samples, we felt deeply encouraged by the positive reception of our newly instituted PGS. The only 'negative' comments we obtained involved comments like the one received for S4 - a call for a more domain-specific session, more depth, and longer duration of the workshops like the comment received for S5 above. In any case, this enthusiastic reception by our PG students reinforced our conviction that this kind of (informal) training and frank discussions about issues that lie outside the formal curriculum are much needed.

Spurred by this initial success, we went on to offer PGS regularly in the subsequent semesters, and at each offering, we repeated the topics that were constantly in high demand (e.g. on effective communication, thesis writing, literature review, preparing for the PhD defence, etc), and also devised new topics that either we thought useful, or the PG students felt were needed. Some of the new sessions that were introduced also took on a more domain-specific slant, something that the feedback requested us to do. To date, we have completed three cycles of PGS (August Term 2011, January Term 2012, and August Term 2012; January Term 2013 is currently in progress46), and in the three cycles, we offered the following topics (in addition to the welcome reception):

Academic integrity

Components of a research paper

Effective oral communication/presentation skills: Know it, use it, ace it

Getting the most out of graduate school

How to frame the good and right research question

Identifying a research topic & managing the supervisor-supervisee relationship

Planning & managing your postgraduate journey

Planning the right experiments

Preparing for the qualifying exam/PhD oral defense

Presentation skills for scientists

Quantitative and qualitative approaches to research and data collection

Staying motivated throughout the postgraduate journey

Taking an analytical approach to thesis writing

Turning a paper into an oral presentation

Writing literature review for a thesis/dissertation/research paper

These three cycles have been facilitated by 15 colleagues (several of whom have kept up their involvement across the three cycles) across 15 departments on campus, with more expected to be involved in future PGS as word spreads and the series gains momentum.

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46 In the fourth run of PGS (January Term 2013), we offered a session that covered CV writing, preparing for interview and how to start well in the first year at work.
The participation rate has also kept up the initial trends, with sessions as large as 200-300 in some cases, or as small as 25 in some of the more customized and domain-specific ones. In the context of our PGS, the topics offered in each cycle map into the skills and attitudes related to the various stages of the graduate student life. PGS has been conceptualized in ways that align with RISE (see below) and emphasizes on providing a loosely structured, informal and secondary mentorship model along the lines of Kram’s Mentoring Mosaic (MM) or Relationship Constellation (RC) model (see Kram (1983, 1985, 1998) and Kram and Higgins (2008)). As seen in Figure 1 below, PGS sessions span four dimensions: the Relational, Intellectual, Self-management and Employability dimensions of skill development through a group-mentoring process:

- **Relational**
  - Supervisor-Supervisee Dynamics
  - Networking
  - Interpersonal Dynamics

- **Intellectual**
  - Research Skills – Literature Review, Problem Definition, Planning Experiments, Surveys and Fieldwork
  - Preparing for Qualifying Exams and Final Thesis Defense
  - Authoring/Publishing Tools
  - Computational Tools

- **Self-Management**
  - Time-Management
  - Ethics and Plagiarism
  - Dealing with Setbacks and Successes in graduate school

- **Employability**
  - Writing and Communication Skills
  - CV Writing and Interview Skills
  - First Year at Work

Figure 16: The Components of PGS - The RISE Model

These four aspects of RISE are all essential as they contribute towards both personal and professional effectiveness, but are unfortunately for the most parts neglected by the formal curriculum.

Though our PGS has been well-received by students, we have met with various kinds of challenges in facilitating the PGS series. One challenge we faced was, especially in the early days of its conception, resistance from certain pockets who felt that a T&L centre does not have the academic expertise to run such a series. Some put it bluntly in this way: "Who are you to teach our students how to work on their thesis?" We were also mindful of the potential conflicts that may be generated between our facilitators (who are academics from different disciplines), the student and the student’s supervisor. The question of who should have access to the PG student, who should/can influence his/her life as a PG student, and so on, can become fairly political issues on campus. However, challenges aside, whether in terms of continuing demand for PGS workshops, or the slow but growing number of colleagues who voluntarily came forward to help us conduct specific sessions, or in terms of the consistently positive feedback we received from the participants, we believe we can rest assured that PGS has enjoyed success in ways that are both expected (because of the clear need for it) and unexpected (because the enthusiasm level and gratitude felt by students were much more than we had expected). Also importantly, a positive outcome from PGS is that many of our colleagues have gotten involved in dialogues about graduate student mentoring at local levels. In addition, PGS facilitators have learnt from one another about

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47 The RISE model is based on what we have learnt from a presentation given by colleagues from KU Leuven on “Competence Profile for Graduate Students” (2012). Though they do not use the competency profile to run a programme like PGS, we applied the idea to our PGS and created the acronym RISE to guide our PGS structure.
various effective approaches or practices in specific subject domains, thus gradually establishing a community of practice. For what it is - the modest aim of PGS to help our PG student body, a largely informal student workshop series that is voluntarily kept going by willing and generous colleagues, facilitated by and on a T&L centre platform - we think PGS has added much value and has played an important role, even if in small ways, to make the postgraduate journey easier, and more enjoyable, for at least those students who have joined us at one or more of these sessions. Our questions then are: Do activities like PGS fit or not fit current understanding of PG mentorship? Where is PGS best located? In a T&L Centre? Or localized in departments where PG students call “home”? In the following section, we situate our work in the relevant literature on postgraduate student mentorship, and provide an evaluation of how best to view the PGS workshop series, and the future of such an endeavor.

**Mentoring postgraduate students: Different mentorship models**

More than 50 definitions of mentoring can be found in the published literature according to Crisp and Cruz (2009). Some of these are based on activities of a mentor while others focus on mentoring as a concept or process. Some definitions are discipline-specific, while others are extremely broad. Despite this diffused situation, Jacobi (1991) identified three broadly accepted views of mentoring - it must:

- lead to the growth and accomplishment of an individual;
- include several forms of assistance and support aimed at professional and career development; and
- work on psychological well-being of the mentee.

In a similar vein, Miller (2002) noted that mentoring can be development-oriented or work-related or subject-related. Nora and Crisp (2007) identify the following four key domains or latent structures that characterize the mentoring support system viz.

- psychological and emotional support;
- support for setting goals and choosing career path;
- academic subject knowledge support; and
- the specification of a role model.

We are happy to note that our PGS sessions have explicitly or implicitly attempted to provide precisely such forms of mentoring and guidance, whether it is in terms of discussions about career development or simply allowing for an avenue to render emotional support. Barnes and Austin (2009) have described mentoring as “woefully uneven experiences of supervision”. There have been comparatively fewer empirical studies on the effect of mentoring on graduate student populations than on undergraduate students, minorities and at-risk students. Recent studies on graduate student mentoring have largely focused on the process or characteristics of mentoring. Relatively fewer investigations have been on aspects such as identifying the factors that contribute to the potential for mentoring, prevalence of mentoring or the impact of mentoring on student outcomes. This gap ought to be addressed in the future, as it is important that we understand the outcomes of mentorship, especially given the heavy investments required of such mentoring programmes.

Working from the perspective of students, Fiascon (1996) indicates that graduate students conceptualized mentoring to comprise of several components: academic, facilitative, professional development, career and personal support. The longitudinal study of Paglis et al (2006) on graduate students belonging to engineering and science faculties was based on Kram’s model but adjusted for student attitude and ability. While their study did not clearly delineate the confounding factors, they concluded that mentoring may positively impact subsequent productivity and self-efficacy of graduate students but appears to have no significant impact on commitment to a research career.

A study by Hadjioannou et al (2007) on a small cohort of doctoral students highlighted the need for socialization in professional/academic settings, gaining skills to navigate through the doctoral programme, receiving emotional support to alleviate the stress and anxiety that
accompanies doctoral work and participation in academic discourse. Support received from the programme advisor during PhD studies and while transitioning into their post-PhD careers were evaluated by over 3,000 social science doctorates. Examining this mass of information, Rudd et al (2008) noted a strong unmet need for guidance in planning doctoral education strategically, for information that would help connect PhD education to career goals and exposure to multiple career paths. Analyzing narratives and data provided by their subjects, Rudd et al (2008) suggest that universities and PhD programs could provide more in the way of career guidance, career preparation, exposure to a variety of career options, and access to diverse professional networks. Our PGS experience informs us that an informal platform such as the one we provided can go some way towards answering these needs.

In surveying the mentorship literature, we encountered many studies that identify the role of demographic factors and supervisor support in creating a good PhD experience and subsequent outcomes for students. Platow (2012) mentioned that many universities see the need to develop generic qualities and skills, preferably interwoven with the students' research (content) area. The study by Manathunga et al (2009) surveyed people who had completed their PhDs in science. Respondents were asked to indicate the degree to which skills developed during their PhD studies prepared them for their current employment. While 58% or more respondents felt they did have sufficient skills, many respondents indicated needing further development of complementary skills such as time management, and goal setting - yet these are the types of issues usually not given coverage in the formal curriculum.

McAlpine and McKinnon (2012) used evidence from weekly logs and personal interviews with 16 social science doctoral students to conclude that students depended almost to the same level on peers, friends, and family as they did on the supervisor. The doctoral students seemed to draw different kinds of support from each relationship. The authors conclude that it is necessary both for research and policy/practice to articulate "supervision as a pedagogy which positions the student as able and willing to draw on a range of resources, often beyond the university - with the department, faculty (and institution) creating structures to support this student agency. Such structures would have the added advantage of creating equity of support for both students and supervisors ...". All the above indicate that graduate students could benefit significantly from forms of support beyond the academic socialization afforded by the supervisor and the department, and confirm the need for a student series like the PGS.

Finally, the impact of mentoring is known to depend on several factors related to student background, attitudes, mentor skills and attitudes. Mullen et al (2010) explore a graduate intervention that intends to promote understanding, empowerment, and skills building of doctoral students in education. They discuss the usefulness of the Mentoring Mosaic (MM) or Relationship Constellation (RC) model proposed by Kram and her colleagues (1985, 1988 and 2008). The MM or RC model can be organized formally or informally, and can be a primary or secondary system of mentorship. They function as a network, community or simply as a resource; they can be non-hierarchical, compensate for gaps in existing traditional mentoring relations and even expand academic and career opportunities. Having students benefit from a development network is perhaps essential in today's environment characterized by the rapidly exploding knowledge base, and the need for multidisciplinary and multicultural skills.

This broad survey of the literature renews our conviction at three levels: beyond the formal curriculum, PG students need guidance relating to their studies along the RISE dimensions; successful mentoring will depend on the investments that universities are willing to make in providing the resources to develop both informal and formal supportive networks and platforms; as a form of modeling, mentorship provided by the academy, through explicit discussions about the postgraduate journey can go a long way towards developing a positive learning and induction culture.
These needs served as the underlying motivations for our PGS workshop series, and the findings in the literature reinforced our views of the importance of PGS, and the role a CDTL can play within the university in providing such postgraduate student mentorship.

**Locating PGS and postgraduate student mentorship**

The informal success enjoyed by the CDTL PGS series provides sufficient motivation for us working from the CDTL platform to continue making the workshop series available to our postgraduate student body. However, as administrators (and educators), we are often confronted with issues of fit, efficiency and what may be argued to be the 'proper' locations of our programmes. We therefore ask: is a teaching and learning centre the best place to house such a programme? If no, then where should a postgraduate student mentorship programme, in whichever sense we understand 'mentorship', be best located?

There is much to be said for the fact that mentorship for any segment of the student population ought to be the purview of departments where these students are most immediately located. There are three main reasons for this view:

It may be argued that students identify most closely with their department or faculty. For reason of scale, it may be more feasible to provide mentorship to one's own 'home' students.

Departments and faculties are the best places to provide domain-specific mentorship and support, especially when dealing with academic aspects of the mentorship.

We could however, also think of at least three other reasons for the provision of mentorship by a more 'global' body, at university level, like in a teaching and learning centre:

A university level teaching and learning unit like CDTL is well-positioned to provide a broad overview of academic practices and informal support or network structure for students across the university campus.

The pedagogical expertise and specially-trained personnel that is often available in a teaching and learning centre makes it a good place to locate such a mentorship programme.

A university level mentorship platform is essential in instilling a sense of community among students from across different disciplines, providing an occasion for students to meet peers from other parts of campus.

Most likely, there is no one good answer for adopting either the local/department or global/university approach to mentoring, but at least two things are clear - (i) mentorship of some kind is needed by our students as they embark on their journey towards becoming full-fledged members of the Academy; and (ii) a mixed approach that involves two levels of mentorship at the department/faculty and university level may work best as issues relating to disciplinary practices are perhaps still best handled by departments/faculties, and broader issues relating to time management and career-related matters could conceivably be helmed by university units like a CDTL. Ultimately however, where this mentorship programme should be located is perhaps not such an important question. Instead, what is important is that PG students are provided ample opportunities to acquire not just disciplinary knowledge that the formal curriculum caters for, but also learn the skills needed to successfully navigate the world of academia.

**References**


Turnitin: It's a scary rainbow for us

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ABSTRACT: This qualitative investigation was undertaken with students on one specific postgraduate programme, who were also studying at that level in the UK for the first time, and was conducted in response to the greater prevalence of international students studying on postgraduate programmes in the United Kingdom. While previous research points to general transitional challenges, this study looked more specifically at the study experiences of these students. It found three critical themes, the learning, teaching and assessment culture; academic convention and plagiarism; and the role and nature of support. Following discussion of the potential practice implications of those themes, it goes on to make recommendations for future practice when working with students.

1 Literature Review

There are growing numbers of international students arriving in the United Kingdom (UK) to study in Higher Education Institutions (HEIs) from a variety of European and non-European countries. The top five non-European countries that send students to the UK to study in order of numbers are: Peoples Republic of China, India, Nigeria, United States of America (USA) and Malaysia (UKCISA, 2013). The UK has a long history of welcoming international students to study in its universities and colleges. In the UK last year there were 1,800,000 full-time undergraduate students in higher education, which included over 104,000 international students (UCAS, 2013).

Pearce and Johnson (2012) ask if the next generation of world leaders will be educated in the UK. The world-class universities in the UK explain why it is the second most popular destination for international students to study after the USA. The students gain friendships and loyalties that later become trade links, cultural bonds and diplomatic ties.

It is crucial for the UK and for UK HEI’s to build a national brand as a safe and exciting place to study, offering a rich life experience and enhanced career prospects. Tapping top-flight student talent globally will mean that the UK gains in terms of innovation, research and a broader science and skills base. This greater exchange of students will not only mean stronger relationships later, but will also go a long way to meeting the sustainability, financial and otherwise, of institutions (Pearce and Johnson, 2012).

It was clear from the literature around the experience of international students in the UK and other similarly developed countries, that transition from one country and education system to another is important, relevant and often challenging (McLachlan & Justice, 2009; Poyrazli & Grahame, 2007; Wang, 2012). In order to support these students adequately, it is important to acknowledge some of the challenges that they face. McLachlan and Justice (2009) believe that most international students become integrated with the new local culture successfully, but some face challenges of cultural and academic difference, social isolation and difficulties with English language proficiency.

Although there were many earlier studies carried out in relation to the experiences of international students studying in the UK (Asmar, 2005; Ward, 2001), more recent studies exploring this very pertinent topic are less prevalent. Brown and Holloway (2008) undertook an ethnographic study of the adjustment journey of international postgraduate students at a university in the South of England. They expected to discover that the students would be initially excited about their new experience, but the students appeared to be overwhelmed by negative symptoms more commonly associated with culture shock.
Several studies have been conducted in the USA. A study by Poyrazli and Grahame (2007) examined how international students adjusted to their new environment academically and socially. Focus groups were conducted and revealed a considerable number of barriers to their ability to adjust. The barriers faced were in relation to academic life, health insurance, living on or off campus, social interactions, transportation, and discrimination. Williams and Johnson (2011) reported that limited social contact with members of the host country contributed to the international students feeling depressed, anxious and alienated. There is also evidence that international students have a marked impact on host students and that those host students who had engaged in friendships with international students were found to be more open-minded and were less apprehensive about forging international friendships (Williams and Johnson, 2011). Olivas and Li (2006) reported on a literature review they undertook in relation to international students in universities and colleges in the United States. They explored stressors such as adjustment issues and coping strategies, which reflected in some ways Poyrazli and Grahame’s (2007) barriers. Although the experiences of some international students studying in the US appear to be negative, McDermott-Levy (2011) identified the positive aspects also. A phenomenological inquiry into the experiences of 12 Omani nurses studying in the USA revealed that although they felt alone and at times discriminated against, this experience also enabled them to mature, grow and experience a sense of freedom and independence not possible for them at home.

The issues are not just for international students studying in the UK and the USA, they apply also to international students studying in other countries. Wang (2012) undertook a study to examine the study experiences and coping strategies of Chinese students in Singapore. The issues identified were academic and social marginalisation, aligned with a marginalisation within the student/supervisory relationship.

Fritz, Chin and DeMarinis (2008) believe that all international students cannot be considered together as one homogenous group and that they all have differing cultural needs depending on their country of origin. They also identified common stressors similar to other studies. In addition they believed that before we can measure anxiety in international students, it is important to measure the stress and anxiety of students studying in their own cultural environment experience. At this point, it is worth acknowledging that variety in approaches and preferences for learning is not restricted to an international student population and that this study is conducted within a complex and heterogeneous educational environment.

The aim of this study was to develop a better understanding of the experiences of international postgraduate students who had moved to the UK and to use this understanding to inform future developments in the learning, teaching and assessment (LTA) strategy and the support made available to them.

2 Research Method

This study was undertaken at an institution with 4,000 international students on campus from 109 different countries and 3,500 more studying overseas on courses delivered by partners.

The authors were interested in testing the nature of the transition experience of international students in the UK to assess its relevance and how this transition manifested itself within their own programme and institution. As such, focus was concentrated on students’ transition to their own study experience and the HEI in question. The study was designed to explore variables of specific local relevance which could inform future developments for enhancing the curriculum and LTA strategy for international students.
The study set out to achieve a richer and more detailed appreciation of the experiences of postgraduate international students in the UK for the first time and, as such, qualitative data was gathered. A focus group approach was selected as the appropriate method for this piece of research in order to facilitate the participation of those who might find one-to-one interviews intimidating and to enable less communicative participants to make contributions of greater quality and candour (Barbour, 2007).

The criteria for inclusion were postgraduate students undertaking one specific programme of study who had not previously studied at this level in the UK. There were only a small number of students eligible. As such one focus group was sufficient and this was facilitated by the researchers. While all the students were from India, their previous educational experiences differed greatly. This was in terms of subject and discipline studied (Medicine, Occupational Therapy and Physiotherapy), previous level of study (two students having previously studied at postgraduate level and one with a purely undergraduate background) and place of previous study (while all had completed their undergraduate studies in India, one had also studied in Singapore and another had historically studied in the UK).

The group discussion was scheduled at a time and venue which fitted in well with the students’ existing timetable. This both minimised any inconvenience to participants and also increased the likelihood of a good level of involvement from those eligible. It was, however, clearly separate from timetabled classes so that any potential concerns about coercion or uncertainty about the voluntary nature of participation was minimised.

This discussion was led by the questions listed below, but the raising of any others issues of relevance and importance to the participants was encouraged.

Describe your experience of studying in the UK
How has this compared to home?
How have you found the support, both academic and pastoral?
Do you feel the university took any steps to make the transition more positive for you? What more could have been done?

This discussion was recorded and the researchers employed thematic analysis to identify the participants' key responses.

2.1 Ethical Considerations

Ethical issues were taken into consideration and the study was approved by the relevant institutional committee. Participants were asked to read a participant information sheet and were not able to take part unless they had signed a consent form. The transcript and any other information that might reveal participants’ identities was anonymised wherever possible and kept in a locked drawer within the researcher's office to which they had exclusive access (other than permitted staff). Once the research had been completed and written up, any confidential information was destroyed.

3 Findings

Following thematic analysis, there were three distinct sets of findings, 'the learning, teaching and assessment culture', 'academic convention and plagiarism' and 'the role of support'.

3.1 The Learning, Teaching & Assessment Culture

The first overwhelmingly common feature was that the nature of studying in the UK is completely different to that in India.
"over here, the teacher will not sit beside you and teach you each thing, he will give you a brief idea about it and you are the person who will have to go back and study deeply and write your own thinking" [STUDENT A]

This difference further manifested itself in the expectations of UK academic staff around self-directed learning compared to those of their teachers in India. The students described the latter as being a culture of rote learning and precise replication of what had been taught.

"Back in India, whatever we read just - you know - read it and write it down in the paper" [STUDENT A]

"we had classes where he… would just give us enough to spark up our interest and then we were free to read accordingly how we want " [STUDENT C]

All participants described the experience as one of culture shock, compounded by additional pressure of only having a short time in which to successfully complete the programme.

"For students not from the West, it is incredibly difficult… from a postgraduate perspective, we have just one year to get it right and the first three months are pretty difficult and that, I believe, is the most formative part of our understanding of the university’s functioning.” [STUDENT C]

While the LTA culture in which they found themselves was clearly very different, the students were largely positive about it. Perhaps unsurprisingly, they were well aware that study in the UK would be very different to that in India and, indeed, described that as informing their decision to enrol on the programme.

They talked about how the experience of studying in the UK had encouraged them to challenge, question and develop ideas and knowledge and that this was done through ongoing communication and collaboration between them and both their peers and members of academic staff. As well as seeming to enjoy this culture of learning there was also a sense of it potentially enhancing their professional practice in the future.

"it's never that the tutor is talking and we're just listening, it was always like a two-way interaction which is really good as we can actually challenge, question and develop and talk as a group" [STUDENT B]

"it makes me understand the importance of questioning why things are done so that I can be a better professional in the future" [STUDENT B]

They talked about a kind of encouraged risk-taking in their learning in the UK (a climate whereby even if what you say is wrong, then that engagement with ideas is still seen as a positive thing) and a greater incidence of informality between students and staff (as opposed to a more hierarchical relationship being the norm in India).

"we were encouraged to give forward our ideas…. I was never said that you should shut up because I was completely wrong. Even if I was wrong I was then encouraged to say and then we'd discuss on it" [STUDENT B]

"I'm not saying that we can't approach our tutors in India because we can, absolutely. It's just that, over here, we have more of an informal relationship" [STUDENT B]

"It makes you more comfortable and feel like you can share anything regarding your studies to your tutor" [STUDENT A]
The students felt that the greater informality in staff/student relationships, encouragement of discussion and critical analysis, expectation of self-directed learning and use of assessment methods other than timed, handwritten exams all worked well together as a coherent whole.

"Whether this informal relationship improves the learning process, I am not an expert to comment on it. One thing is for certain, it does suit the methodology of study that is accepted here." [STUDENT C]

They were, however, also clear that the LTA culture in India with which they were more familiar (which they summarised as involving more formal relationships, the desirability of replicating knowledge gained from staff or textbooks and formal examinations designed to assess recall of that knowledge) also represents a coherent and effective LTA system. It was almost as if the LTA approaches were so very different in these students’ minds that there was little meaningful by way of like-for-like comparison or competition between them.

In summary, students felt that the self-directed nature of the programme and the interactive and collaborative nature of the LTA experience in the UK was something which they were not accustomed to from having studied in India. This was made more challenging due to their belief that one year was a very short time to adjust to this new learning environment and successfully complete the programme. There was general acknowledgement that the informal relationships with tutors were a supportive feature. Students recognised the above as positive aspects of the programme.

3.2 Academic Convention and Plagiarism

The students’ reflection on the transition to this UK HEI LTA culture as a challenging, yet ultimately positive, experience was overshadowed, however, by a lengthy and emotive discussion about plagiarism. The discussion arose unprompted by staff and dominated a significant part of the group’s discussion. The students' comments offer a helpful perspective on the international student experience of expectations around plagiarism and conduct and convention in terms of academic writing more generally. This area was deemed to be of particular interest and relevance, especially as the research was conducted at an institution in which all student work must be submitted through Turnitin.48

The word 'plagiarism' was known to only one of these students previously and, even then, it was a notion which carried little real meaning for them. As such, their first meaningful exposure to it was while settling into study in the UK for the first time.

"I didn't even know that a word like plagiarism existed" [STUDENT B]

"It's a word that has been in the dictionary for me. In the UK it is considered to be 'serious academic misconduct'…. This concept has never been brought out to us in such serious terminologies." [STUDENT C]

There were differences in the students’ attitudes towards how effectively the nature of plagiarism had been communicated to them. One student felt that they understood clearly what constituted plagiarism and how to avoid it, while the others did not share that level of understanding. It is interesting to note that the former student had attended sessions on plagiarism and academic conduct during induction, whereas the other students had not. Perhaps relatedly, those students who felt less clear about the form and nature of plagiarism had both been subject to investigation into their academic conduct during the programme,

48 Turnitin’s OriginalityCheck is a piece of text-comparison software used to identify incorrect referencing and potential plagiarism; turnitin.com. Areas of concern are presented in a range of bright colours.
while the student who had attended induction sessions and better understood how to work with UK academic convention had experienced no such difficulties.

While differences in understanding and perspective were evident, all three students shared one common feeling when being introduced to the concept by academic staff. When describing their feelings about plagiarism, the reaction was overwhelmingly one of fear.

"I was scared" [STUDENT B]

"is it like a crime?" [STUDENT A]

"Turnitin is a scary rainbow for us" [STUDENT B]

A certain positive can be found with this, in that one of the students talked about how the very clear and strict manner in which expectations around plagiarism were communicated had made them very careful and deliberate when preparing work for submission.

"Because I had attended the induction probably, that was why I was extra vigilant when I was writing" [STUDENT B]

On a simply human level, however, the idea that the early academic experiences of international postgraduate students might be coloured by such negative and emotional experiences is surely of some concern. The students themselves also identified further unintended consequences of this, specifically around it compromising their attempts to meaningfully engage with the collaborative, risk-taking LTA culture described above.

"It does sound very intimidating…. I believe it is a huge inhibitor."[STUDENT C]

"Your confidence comes down so badly and it takes a long time to recover after that." [STUDENT A]

At the time of the focus groups, the students were approaching successful completion of their studies and so it is reasonable to say that they had been able to negotiate and resolve their varying difficulties as regards academic convention and plagiarism. Two of the students had not, however, embedded the principles underpinning plagiarism into their own practice.

"It's not that we're just copying things out. It's not that we are taking the easy way out. It's how we have been taught: to know the text in and out." [STUDENT C]

"Technically speaking, what are you changing? You're just changing your words. What different idea are you giving? So what is the problem for me to write exactly the same words as the author has written…. I don't see the point of changing things just so that Turnitin doesn't catch it. " [STUDENT C]

The quotes above are representative of the sentiment of two of the three students. They suggest that while surface engagement with, and successful completion of, this postgraduate programme within a very different LTA culture was entirely possible, a transformational experience to a different academic mindset had not occurred for all.

In summary, there was a clear mismatch between both staff and student expectations. Issues around the ability of staff to educate international students effectively about UK academic convention and plagiarism were raised strongly. All students felt that information on the topic was focused too negatively, contrary to staff intent. The experience of some also suggests that there had been no transformational experience in terms of academic mindset.
3.3 The Role and Nature of Support

A third and final key theme that ran throughout the focus group was the potential value of support available to these students during their studies. When discussed on a general level, this was talked about in very positive terms by the students involved.

"The support is very good, with really helpful staff and lots of resources like the library that was not just for the academic but also for overall development, careers. A lot of advice." [STUDENT B]

One key concern expressed about the availability and effectiveness of this support was, however, very much related to their transition and the difference between the study environment in India and the prevalence of online teaching that they found in the UK.

"the depersonalised nature of learning systems… does also have a huge amount of cultural difference. Back home if I had a doubt, then I would ask direct. That does happen here but dependent on when we have one-to-one sessions." [STUDENT C]

When discussing the experience of their peers in other UK universities, the participants were able to identify a further manifestation of such ‘depersonalisation’ when compared to their earlier learning experiences in India.

"I have known so many students at different universities where the module or programme leader don’t even care. They don't even know the names of their students, even if there are just 10 or 15 of them in the class." [STUDENT B]

While this was not a criticism levelled at their own experience it does point to the negative associations that come with feeling that staff do not know you individually. It also inversely points to one of the resounding positives from their own study experience.

(About administrative staff) "She is really cooperative and helpful. I remember whenever I need help she was there." [STUDENT A]

"At Edinburgh Napier the admin department had lots of information and on the occasions where they didn't have the information they took down their number and they would call me back…. That was very good support, even before I started." [STUDENT B]

"For me, all thanks to [name of Programme Leader] and a few other staff. Although the transition was not exactly smooth, it was not too difficult because we had enough support." [STUDENT C]

This availability and proximity of key members of staff who were focused on them and their developmental needs was certainly something that these students felt should continue or, indeed, even be made a more defined and formalised phenomenon. One student suggested that it would be useful to have:

"someone who from a position of authority, but from a motherly aspect, tell about how to integrate culturally into the university." [STUDENT C]

The important role that key individuals play in making these students' experience positive and well supported was expressed clearly by all participants. There was a powerful sense of the potential benefits of people in positions of knowledge and/or authority taking time to get to know them and going above and beyond what is strictly necessary to ensure they have everything they need. While the participants were very honest in describing their year of study as challenging and, at times, difficult there was a strong thread through the discussion
of them feeling valued and respected as individuals by those responsible for their programme. This supportive foundation evidently made them feel better able to encounter and overcome these challenges and difficulties.

4 Discussion

The transition experience for these students was clearly challenging and also systemic in that it fundamentally affected the total experience of learning, of teaching and of assessment, not just one or two of these features. In analysing the qualitative data, it is argued that the way in which these students’ transitions are supported needs to be re-examined. The induction process for these students was identical to those entering the programme from UK HEIs, namely short and front-loaded in nature, which is probably due to an implicit expectation of student preparedness.

One specific manifestation of difficulties caused by this transition between LTA cultures was the issue of academic convention in the UK, seen through the prism of plagiarism and its relationship to academic misconduct. The way in which the notion of plagiarism was communicated particularly exercised the students, with them believing it to be overly draconian and deficit-focused, resulting in it actually impairing both their confidence and their ability to engage unreservedly with the new LTA culture. The students’ call for these issues to be communicated in a gentler and more encouraging manner should be heeded if UK Higher Education is to support international postgraduate students more effectively.

From the discussions about plagiarism, it was clear that two of the three students had completed the programme of study without having meaningfully engaged with the academic conventions around plagiarism, referencing, paraphrasing and synthesis of ideas which they found in the UK. They had both taken a very strategic approach whereby they had learned what was expected of them and how to present work in a manner and format which would be acceptable. They had not, however, made any kind of conceptual leap or wholesale adoption of these ideas which were new to them. This has led the authors to consider further whether this kind of ‘transformation’ is a necessary aim for UK HEIs offering postgraduate courses to international students. If so, then the situation described above could be indicative of a wider, more fundamental problem. There are, however, questions around whether this is, indeed, a necessary aim. When considering the situation whereby both of these students returned to India indefinitely following successful completion of the programme, the question might be asked as to whether it is even a desirable one.

Having described the challenging transition for this group of students a strong theme around the need for support has emerged from the findings. There is much within the findings to suggest that a perception of receiving personal, individualised attention is important and valued. Named individuals, and situations in which a member of staff was seen to have acted above and beyond the bare minimum, were both lauded by the students. The former in particular seemed to give students the experience of feeling supported and encouraged to make a success of the challenging programme ahead of them. This idea of trying to deliver a personal touch to the student experience is one the authors are keen to learn from.

5 Recommendations

From this research, the themes below are important in relation to international students coming to the UK for the first time and in identifying areas of potential good practice for future development. The data suggest that this can be considered clearly in three areas, induction; LTA; and support. Recommendations for practice include:

5.1 Induction
A more intensive, bespoke induction should be introduced
Induction should be viewed as a longer and deeper process, possibly embedded throughout the first trimester
Staff awareness of, and ability to respond to, student needs should be increased
Opportunities to work with these students pre-induction should be explored.

5.2 Learning, Teaching and Assessment

Discussing the role, purpose and validity of alternative assessments with students more directly and pro-actively
Can the idea of plagiarism be communicated differently? It clearly currently feels very up-front and threatening. There could be ways to scaffold it more effectively through the first semester or to invert it so that the focus is, perhaps, around effective referencing and paraphrasing, rather than the misconduct offence of plagiarism.

5.3 Support

As relationship-driven support was favoured, ways of initiating and maintaining these personal relationships should be prioritised to increase staff/student proximity
Identification of a named person, ideally who has relevant knowledge and some authority to action issues, was appreciated by these students and should be extended to include, as a minimum, all overseas students
Staff development to include developing effective relationships through being positive and valuing in nature, flexible and accessible for the students concerned and carrying a genuine sense that this person is willing to go the extra mile.

5.4 Limitations

There were some limitations to this study. Firstly, all of the students involved in the focus group were from India and from just one UK HEI, therefore it is unlikely that these findings can be generalised to other student groups, however that was of no significant concern as the research was always intended to have a local, practice focus. The students were also undertaking a postgraduate programme of study and this level of study may produce challenges for all students. As no comparison was made with the home postgraduate student experience any different or additional concerns experienced cannot be isolated.

6 Conclusion

It was clear to see that the experience of these postgraduate international students was generally positive. That is not, however, to say that it cannot be improved for students in the future. Studying in the UK was evidently very different to the students' previous experiences, but the participants stated that, although challenging, this was not necessarily a bad thing.
As educators, however, we need to take full cognisance of that difference and this involves not merely being aware that the students' experience is different, but also taking account of the form which that difference takes and the implications for practice.

From the research conducted here, three areas of the international student study experience are pivotal, namely induction processes, how the LTA approach is communicated and the provision of effective support. These merit more detailed consideration and greater prioritisation when designing future curricula.

When reviewing the recommendations above, the authors were minded that these were closely related to what might be seen as good teaching practice for all students. It is reasonable to think that, if implemented, any and all of those recommendations would be to the benefit of all students and not just to those studying in the UK for the first time.
7 References


Pearce, N and Johnson, J (2012) Foreign Students are Key to UK Prosperity, available at www.ft.com/cms/s/0/cdec9fa0-9d1b-11e1-aa39-00144feabdc0.html#axzz2PaOkpZFl (last accessed 5 April 2013)


UCAS (2013) Find out more about studying in the UK, available at www.ucas.com/students/wheretostart/nonukstudents (last accessed 5 April 2013)


Williams, C T and Johnson, L R (2011) Why can't we be friends? Multicultural attitudes and friendships with international students, International Journal of Intercultural Relations, 35, p 41-48
Postgraduate student transition: how different is it from undergraduate transition?

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Abstract
This paper presents findings from an institutional research project exploring postgraduate experience of transition. Much of our institutional work on transition has focussed on undergraduate students. University policy on New Arrivals and Transition was endorsed in 2011 for undergraduates, raising questions about our primary focus on undergraduates and about the differences between undergraduate and postgraduate transition. This prompted our research, which included focus groups with staff and students and individual student interviews. Key themes emerged from this research: preparedness for postgraduate life and study; communication; socialisation; skills and resources; staff and student training; institutional systems. Our research suggests that the transition needs of postgraduates may differ in level and intensity but not in kind from those of undergraduates; postgraduate transition deserves the same attention, design and resource as that of undergraduates. Our institution has now accepted a range of recommendations about policy and practice.

1. Introduction
1.1 Sector context
At Greenwich, as at many higher education institutions, transition has received considerable attention in recent decades, as we have come to understand how students’ early experience at university impacts on success and achievement; how the development of a good "fit" between student and institution is crucial, and is shaped by multiple complex factors including personal, social, pedagogical and other institutional elements (Tinto 1993; Yorke & Longden 2008; Cook & Rushton 2009; McInnis 2001). Institutions have designed successful programmes to facilitate students’ induction into higher education and support their retention and persistence (Hussey & Smith 2010).

Widening participation agendas have led to an increase in the number of students who have an undergraduate degree within the UK, and market forces have pushed students to undertake postgraduate qualifications in order to be more competitive within the job market (McCulloch & Thomas 2012). For universities, the financial gains from postgraduate education have led to the development of taught master’s programmes aimed at international students, budding academics and practitioners (Bowden 2005). This expansion, however, has not resulted in a corresponding increase in resources to support master’s students specifically (Bowman 2005), nor an established body of research into postgraduate transition more generally (as noted by Scott et al 2011; O’Donnell et al 2009; Tobbell, O’Donnell & Zammit 2010).

O’Donnell et al (2009) suggest that a lack of focus on the transition needs of postgraduate students reflects the assumption shared by many within higher education that these students are already prepared for postgraduate study since ‘postgraduate-level study simply represents “more of the same”, or “taking things to the next level”, and thus that there is little (if anything) in the way of a transition to be undertaken’ (2009, 27). O’Donnell et al (2009) and a small but growing number of researchers refute this assumption which is predicated on the belief that only one transition (i.e. to higher education) is involved. In reality, students moving to postgraduate study can experience a variety of different transitions (Hussey & Smith 2010).

International students are challenged by transition into an alien academic culture (Brown 2007); students returning to education often find that they do not have the required study skills and familiarity with the new technologies that are integral to contemporary higher
education (Masterman & Shuyska 2012); students may have changed institutions or subject areas and find themselves at odds in new disciplinary and institutional discourses (Bowman 2005); postgraduate students often have complicated lives, combining family responsibilities with part-time work and study (West 2012). Postgraduate students can no longer be seen as a homogeneous group of high achieving students who have decided to continue studying their undergraduate subject, rather they are a heterogeneous group with their own motivations, previous educational experiences, expectations and differing support needs.

This study sought to explore postgraduate transition within one institution. The aim of the study was to better understand student experience and to subsequently develop relevant policy and practice to support and enhance their educational experiences.

1.2 Institutional context

Driven by concerns about retention and achievement, there has been significant development in our approaches to transition and in the provision we make before, on and following from, arrival at the University. Student feedback has helped us grasp something of the scale and quality of transitional experience: the excitement, high expectations and anxiety and the "bizarreness" of university (Currant & Keenan 2009). This emphasis on understanding newness, which has been important for our work on undergraduate transition, has perhaps supported assumptions about postgraduate students' transitional experiences being different in kind.

New policy on New Arrivals and Transition (2011) has grown out of a cross-institutional enhanced induction project and has been directly based on the views of students and staff and their experience of what works well (Alsford & Rose 2013). The Policy focuses on fostering formation of relationships within programmes, active habits of participation and learning, and on allowing time for transition as an extended process. This reflects a shift from earlier patterns of induction as primarily information-giving plus the Students’ Union. It was decided, without extensive discussion, that the Policy was for undergraduate but not postgraduate students. It was, perhaps, assumed that, not being new to higher education, postgraduate students do not have the same transition. Planning processes in Schools are separate for undergraduate and postgraduate new arrivals, and those overseeing postgraduate transition have been less represented and engaged in our developmental processes.

We know from our institutional New Arrivals Survey that the early experience of our postgraduate students is broadly similar to that of undergraduate students, and generally very positive49. Between 2010 and 2012, survey findings have shown that there was no statistical difference between undergraduate students and postgraduate students in terms of whether their expectations had been met, their sense of belonging to the University, their confidence in understanding what was expected of them (2010, 2011, 2012), the information that they had received (2011, 2012), and their understanding of the purpose of the first week (2011).

There were some differences. Postgraduate students are statistically significantly less likely to participate in planned activities (2010, 2011, 2012), particularly those that are organised by the Students Union (2010, 2012), which they often perceive to not be applicable to them (2012). Postgraduate students are also statistically significantly more likely to arrive on campus after the start of term (2011, 2012). Both of these aspects could potentially have an impact on students' ongoing socialisation into the University.

49 Findings from the university’s New Arrivals Survey, administered and reported by the Educational Development Unit
The context and this previous research gave our study a clear focus: what can we learn about the experience of our new postgraduate students and those who support them? would exploration of these experiences support the assumption that our policy, and particularly its statement of entitlement, does not or should not apply to postgraduate students? what recommendations can be shared with the sector to enhance the postgraduate student transition experience?

2. Approach to the study
This project included focus groups with staff and students and individual student interviews. Thirty members of staff participated; these were primarily academic staff with some professional staff working in information services or central student support. Forty-one students participated in the student focus groups, there was a mix of postgraduate research and postgraduate taught students. In addition, five in-depth individual interviews were carried out with postgraduate students (I 1-5), they comprised: one PGCE, one MA, one MBA and two PhD students. This report focuses only on data from taught students.

The focus groups used a range of activity-based group exercises (Krueger & Casey, 2009) Both staff (S1) and student (S2) focus groups included a post-it note activity asking participants to note useful new arrival activities and sources of information and to make recommendations for improvement. Staff were also asked to map postgraduate transition experience onto a student lifecycle model (Hefce 2001,15-16), noting issues at particular stages through the student journey (J1). Students were invited to map their journey to date (J2), noting peaks and troughs in their experience (Beard 2010, 183-185).

The longitudinal lifecycle approach was an important element of our university enhanced induction project, reflecting the suggestion that 'embarking on master's level studies could be viewed as a key transitional 'stage' of a longitudinal learning career in which particular intellectual, social and emotional challenges are likely to arise' (Scott et al 2011). The focus of this work was thus on on-going transition, in line with institutional policy and the growing sector emphasis, although arrival and the early weeks feature strongly.

The data were analysed inductively, identifying emergent themes. The researchers worked independently and then verified and synthesised their codes into the key themes of: communication; socialisation; support; curriculum design and delivery; training; and staff roles.

3. Findings

3.1 Communications: information and guidance
Unsurprisingly we received feedback on the need for clear communication about practicalities such as applications, visas and finance. However students' needs in these early stages of the process go beyond the practical; keeping in contact is crucial for "keeping warm" and preparing for postgraduate study.

Students saw preparedness as requiring detailed information about the programme including expectations and requirements; about 'the basics' of the discipline (e.g. technical or analytical techniques), and 'some knowledge of plagiarism'. They saw contact with academic staff and former students as the best information sources (S2). Their concerns about preparedness also encompass expectations and attitude. A dominant theme was the need for the right attitude for study, including: "have a clear plan and objective"; being 'pro-active and organised'; and recognising that postgraduate study was difficult, 'MSc is not a joke' (J2).
Although much good provision of information and guidance was identified from application through to the first few weeks, students were clear about the potentially negative impact of gaps and deficiencies, lack of co-ordination and conflicting messages. Such impact may not surface in our New Arrivals survey because the effects may become clear to students only later, perhaps with a first assessment. Master's students talked of how 'more course info prior to starting may have made (assessments) less daunting (reading lists, what course entails, dates)' (J2); another related a sense of missing out because of being so held back by what he'd not known/been told when he began (J2).

Induction and orientation activities which are provided received a lot of positive comments from students and staff and clearly help many with initial settling in, although students noted the lack of consistency in provision for programme-based welcome activities which are 'different for each school, department, campus' (J2). Students talked about being overwhelmed by large numbers in lecture theatres, about information overload and the need for more activities. Interactive campus treasure-hunts scored highly and staff suggested that the first week for postgraduates should be separated from teaching, as undergraduates, to allow for such activity: 'whatever your early experience is really sticks with you' (J2)

The difficulties late arrival can mean for a transitioning postgraduate student were noted often. Staff were particularly concerned about the lack of provision for late comers, and the need for more extended and repeated induction activities, especially at programme level (including learning resources and student services). This is particularly challenging for staff within the constraints of a one year programme. International students are more like to arrive late, and shared responsibility for them between different offices makes coordination difficult - clearer definition of roles is needed.

3.2 Socialisation

Relationships are seen by both students and staff as a crucial element of student experience and support where the University could do more to foster integration. Almost all the students we spoke to were clear about the importance of forming relationships at university and of making friends early in the programme. One student's high point was: '!!!Meeting fellow countrymen and friends!!!' (J2), while another's low point was a 'sense of loneliness' (J2); and 'getting along with students - feeling of togetherness as a group' were all highly valued by students (S2). For one student, a lunch-time break between timetabled classes provided a crucial space for students to socialise, providing some 'time of feeling like a student' which was important to her, but not easy in a very packed timetable (I5).

More activities and events are needed, 'meet[ing] previous students' (S1); 'support groups, especially for postgrads' (S2); 'extra-curricular activities, fun stuff (S1)'; 'more opportunities to network' - with the intention of helping students 'feel more welcome' (S1); and 'more social events of postgraduates' (S1). Some existing activities are sold more to undergraduate students (S1) and some Masters students complained of 'no social activities, just work, boring' and that 'there's nowhere to socialise' (J2).

Staff-student relationships also need to be fostered. Staff spoke of the importance of 'creating a sense of community' and the need for staff to 'get to know the students, set aside specific PG time', 'make them feel part of an exclusive club', 'always ask them how they're doing' (J1). A repeated thread in our research was students' need for personal interaction with and encouragement from staff as well as from peers, 'Small group drinks with supervisors and other students' being a valued experience (J2).

3.3 Support
Communication and forming of relationships is integrally related to support, another core theme in our research which demonstrates the need for appropriate, accessible and helpful personal contact through the whole transition period.

The need for supportive relationships runs from the application process through to the role of tutors or supervisors, administrators, the Students' Union, support services staff, as one student noted: 'meeting with student centre - supportive, kind, gentle, always ready to help, calm' (S2), and even 'security men at the security post' (S1). There was a feeling that, whatever their formal role, all university staff had an obligation to help students settle into life at the university where they may face the need for personal, welfare and academic guidance.

Staff advised you have no presumptions when working with postgraduates and this was borne out by students' comments. These presumptions may relate to their knowledge; maturity; skill level; or their engagement: 'don't assume that they are not engaging if they don't attend initially. Try and find out why. Life in the UK is often very difficult for new international PG students and they need some support at the start' (S1). This may be because, as one staff member noted, 'often students, especially international, do not understand material presented and maybe too my attempts to clarify.' (J1).

The support of academic staff is crucial, staff recognising that they need to get to know their students, be empathetic to their situation and work patiently with them. Students highly value positive relationships with their lecturers, 'excellent programme leader' (J2) being a high point in one student's journey, with another master's student wanted to be 'noticed by instructors during lectures' (J2).

The academics noted that dealings had to be 'organised, clear. Follow up on everything' and that support might be called upon 'at short notice' (S1). Students spoke particularly of the need for support in placements, which may be difficult to organise within a one year course; 'did have the link at the uni, but I didn't know her, so I didn't want to email her and say, what should I do? I met her only for the first meeting, I met her twice so I didn't really know her. So I didn't really have anyone who I could ask, how do you deal with this?'(I5)

Staff highlighted the importance of the personal tutor's role in progress monitoring and support so that there is a sense of a joint journey with recognition of and support for students' development and achievement; 'students ... hit a bit of a trough and need encouragement' (J1). However a lack of consistency was evident in terms of personal tutor support: some postgraduate students receive individual support, but others do not; one student did not think she had a personal tutor: 'I suppose we're meant to have one. But, I'm trying to think. No.... would have helped, to have a tutor you could go through all these things with them' (I5). This prompted academics to ask for 'timetabled support with personal tutor' (J1).

3.4 Curriculum design and delivery

A pedagogy of engagement for postgraduate students was seen as important for both staff and students. This included offering on-going support through the curriculum: 'mix teaching and induction activities' (S1), introduce more 'activity' into lectures (S1) and ensure that students are aware of the resources that are available to them at the times when they need them through tailored postgraduate provision (J1). The social aspect of learning and its impact on engagement was highlighted once again: 'We can learn so much from each other' (I5). Staff noted that 'Small tutorial groups / small group activities in larger groups work best - but need more time' (S1).
Time was identified as a major barrier to ensuring a smooth transition for postgraduate students; the intense nature of year-long master’s programmes means the pressure to cover content is very strong. This was highlighted by one lecturer, who, while recognising that orientation was important, noted: ‘some courses / programmes - students arrive in for and are "oriented" for the first two weeks - meaning they lost two weeks teaching. This means they are already at a disadvantage’ (J1). This focus on content teaching was frustrating for one student who recognised the need for the social aspects of learning: ‘there’s always a tension between what needs to be taught, and free time or play. How do you balance that? [...] I think we all would have liked more discussion time, more free time, for general professional development. But there wasn't enough time for processing what was going on.’(I4).

Time pressure was also reflected in students’ comments about the spread of assessments across a programme. Students reflected on the pressures that bunched assignments caused. Some students’ experience was 'first term just had lectures and study time - no assignments, quite easy and nice’, followed by 'lots of work sprung on us!'(J2), While another student represented their journey in a finally downward trajectory, marked by bunching of assessments and ending with a carefully-taped down tangle of string annotated: 'Course structure a complete mess’ (J2). For another student, time issues were exacerbated by an ineffective use of available time. He expressed his disappointment that while he had a great start to his programme, his second term had been a ‘disappointment’ as his programme had all but ‘fizzled out’ from March onwards, that is, halfway through his year-long programme (I1).

Another key area of concern was around the assumptions that students felt were made about their level of prior knowledge and ability, for example, in relation to critical thinking, assessment and subject knowledge. One student commented on a reading that was described as 'introductory’, but was not introductory enough: 'because his level is such and the words he used, I think sometimes people at that level just make assumptions, because we are postgraduates, they make assumptions that we will understand and you feel a bit stupid saying I just don't understand that, could you repeat it.’(I5). It was clear that assessment caused many problems in terms of expectations and regulations (J1). Students felt they needed clearer information about assessment criteria - to know what is expected: 'guidance over what "good" is’ (J2) and 'initial set of assessments (enjoyed subject matter but uncertainty of what was required)’ (J2). Both staff and students highlighted the need for early formative assessment and the provision of results. International students, in particular, often experienced 'shock' when they receive their first set of exam results (J1), and students noted 'Marking system - low marks' as a low point (J2) and 'not getting support on some assessment. Less motivation'(J2).

In terms of curriculum design and delivery, the time constraints of one-year master’s programmes meant that some students did not receive orientation and socialisation activities that can help smooth transition. Assumptions about knowledge, skills and aptitudes also made it hard for some students to easily get to grips with master’s-level learning.

3.5 Training, skills and resources for postgraduate students

In recognition that transition to postgraduate study can be difficult, both staff and students identified the need for training and skills development. Postgraduates might need ‘up-skilling’ to prepare them for postgraduate study (J1), what one student termed an 'academic "jump up"' in areas such as critical thinking, analysis and academic writing. One student, who has been out of formal education for some years, noted how concerned he was about academic writing at the start of his programme (I1). Luckily his lecturer devoted time to introducing the notion of scholarship. For him, this was a 'fundamental building block' that had repercussions for the rest of the programme. For another, critical analysis and reflection were essential.

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parts of the course where she felt 'induction' and support were lacking; 'if you don't get that, if you don't grasp it, you don't quite get the thread of the whole course' (I5). One academic felt that 'international students need [to be] retrained in what is acceptable for exam responses, coursework and project attendance' (J1), and short courses on cultural diversity and education in the UK were proposed.

More generic skill development, such as information literacy skills, was also highlighted and focus group participants felt that there was inconsistency in current approaches: 'these activities (library inductions, skills sessions) are not programmed in a systematic way, it's down to tutors. Some students won't find out and miss an opportunity' (J1). Assumptions were also made about students' skill levels: 'an assumption that everyone(s) ... IT skills were up to scratch, but they weren't. There was no induction for IT. The library - gave us a list and said check into SWETSWISE to get journals. It was trial and error' (I5).

Particularly important to this cohort was the development of skills that could lead to future employment. Students felt they needed support in 'knowing where to look for jobs, how to apply, develop CV, apply' (J1). The University's Graduate Employability Team was commended (J1); but it was felt that more could be done to develop appropriate initiatives for postgraduate students in acknowledgment of 'the unique employability of PG students'; 'Is the programme relevant to my job aspirations?' (J1). Staff suggested that the University foster: 'stronger links with business to actually provide internships' and that it 'work the alumni connection' (J1). Students spoke of the need for more 'practical speakers - i.e. from the field', whose input they valued highly (S2, I5). 'Attendance of industrial and academic events'; 'providing consultancy for large companies'; and 'beginning working with sponsor on weekly basis' were identified as high points (J2) and students requested more such opportunities.

The message to not make assumptions was thus repeated in the context of identifying training and development needs of postgraduate students.

3.6 Staff roles

What seemed very pressing to academic staff was having a clear understanding about the scope of their role in terms of postgraduate student support by: 'discuss[ing] your responsibilities' and 'seek[ing] assistance if unsure' (S1). One area where academic staff felt their role with postgraduate students had changed was international student admissions. Staff felt largely divorced from the admissions process: 'who decides which students are offered a place? Student intake is largely international, so decisions are made by the International Office. Academics remain largely unaware of composition of student body, as is the programme leader' (J1). Other staff spoke of feeling 'disempowered in terms of decisions about students - applications and other decisions. This is 'not in the best interest of students' (J1). Their perceived lack of a role in admissions led to future problems; with limited knowledge before the start of term of the make-up of their classes, academic staff found it difficult to design their orientation activities.

Staff felt there was a need for training 'for all staff involved' in postgraduate support. The training might be an 'information induction session' or more targeted inputs on the 'needs of international students', or on 'the issues students face' (S1). It was noted that international students had particular needs and that diversity training for staff would be worthwhile: 'some personal tutors and lecturers need more training on issues to do with diversity. Postgraduate and specifically international students have specific needs, some of these are not being met at the moment' (J1).

Again lack of consistency was noted, in relation to understanding what postgraduate student support roles involve; staff wanted clarity.
4. Conclusions and recommendations

The growing body of research into master's students' experiences and their transition journeys supports our own findings, providing further evidence of the ways in which postgraduates may struggle with assessment (Tobbell, O'Donnell & Zimmit 2010; West 2012); technology (Masterman & Shuyska 2012); independent learning and isolation (Tobbell, O'Donnell & Zimmit 2010); differing expectations of study and a mismatch between espoused and practiced pedagogic philosophies (O'Donnell et al 2009; West 2012). Our research also calls for the development of communities of postgraduate learners (Conrad, Duren & Haworth 1998); structured time for peer interaction (West 2011); and subject-specific and personalised support (West 2011). In summary, postgraduate students want recognition that postgraduate study is different and that their transitional needs are as valid as those of undergraduates.

Whilst provision for any particular cohort (under- or post-graduate) may need tailoring, our research suggests that the transition needs of postgraduates may differ in level and intensity but not in kind from those of undergraduate students. We contend that postgraduate transition deserves the same attention, design and resource as that of undergraduates.

Running through the six themes outlined above were four cross-cutting issues:

- questioning assumptions
- recognising the particular needs of international students
- re-evaluating use of time
- prioritising relationships

Despite assumptions we may make about the familiarity of postgraduate students with higher education, our research suggested that they share very similar excitement, apprehension and challenges. This mixture of anticipation and apprehension was evident in many of the journey mappings, presenting a picture not readily discernible from that of the excited undergraduates who are completely new to higher education. This reinforces messages from both staff and students about postgraduates' need for transitional support before, as well as from, arrival. A repeated message from both students and staff was that misleading assumptions are made about postgraduate students' preparedness for study and for life as postgraduates, and that these assumptions mean that students are not always receiving the transitional support they need. There are assumptions that postgraduate students do not participate or are not interested in social events, ice-breakers or fun activities, that they already have the academic and other skills they need for master's study; these and other assumptions are questioned by our research which shows students' appreciation for targeted, relevant activity. For international students who have not studied in the UK before, these transitional needs are greatly complicated by cultural and procedural differences.

Within the space of a one-year programme, supplying this transitional support is always going to be difficult. There is a tension between recognition of the need for time for induction and socialisation and the pressure to get quickly into the course. Careful and realistic attention must be given, as part of curriculum design as well as induction planning, to making the best use of the time available, being realistic about students' capacity, including extra-curricular activities in planning, and understanding that transition is ongoing. The journey mapping, which was the major activity in the student focus groups, showed that quite a few of the mappings ended at a lower point (sometimes considerably lower) than that at which they started and many communicated a sense of disappointment and missed opportunity. Although students identified many positive elements in their initial and early
experiences, there was a sense that difficulties encountered further down the line led them to question whether they could have been better prepared for the experience of postgraduate study. One of the priorities, in the 'best use of time', should be establishing and building peer and student-staff relationships which are often given less attention than we devote to undergraduate socialisation.

At an institutional level, our work on transition has grown out of our history as a strongly widening participation institution which has given us a positive ethos of student support. Conversion and retention have been key drivers for work, which has focussed on dissemination and embedding of effective practice, and on establishing greater cross-institutional consistency in terms of the new arrival experience of undergraduate students. There have not been comparable drivers in relation to postgraduate students, although the need for consistency was a repeated message in our research.

Our current New Arrival Policy aims at achieving comparability in what we offer through the Statement of Entitlement for New Students which lies at its core, balanced by local tailoring for particular cohorts. In a large, geographically spread and diverse post-92 university disseminating effective practice, achieving consistency - and indeed having an accurate picture of what current practice is - is difficult. Formal reporting processes specified in the Policy have operated on the same default setting of 'undergraduate' and involve reporting against the Statement of Entitlement. This means that the growing picture we have of continuing development and innovation - a picture which facilitates dissemination and collaboration - is primarily an undergraduate one. Whilst there has been some provision for postgraduate students - either targeted or alongside undergraduate activity - the postgraduate transition picture is rather more patchy than the undergraduate one. Our research has identified and prompted a shift from this 'default' focus on undergraduate provision. All our students should be provided with comparable support, if we are to enhance their experience and achievement.

For Greenwich, this has led to amendments to our New Arrivals and Transition Policy and the Statement of Entitlement for New Students to explicitly include postgraduate students. It is notable that only minor amendments were needed. This should not be surprising, given that the same kind of provision is clearly needed for both undergraduates and postgraduates (preparation, pre-arrivals, extended transition, forming relationships, pedagogy for transition and engagement). Where the differences will be seen is in what this provision looks like within a postgraduate context. The amendment of the Policy and associated reporting procedures raise awareness institutionally.

Changing practice will be supported by staff development workshops, which take an extended view of transition and base discussion of balanced curriculum design for transition on direct examples from students of challenges they face. Other elements of our institutional context will contribute to changing practice: a newly restructured academic year will now include a First Week, separated from timetabled teaching in January as well as in September; a new Personal Tutor Policy including front-loading of tutorial support for both undergraduate and postgraduate students; and the new role of a 'International Students Compliance & Advice Manager' to meet some of the needs expressed in our research.

Recommendations for the sector, arising from our experience and research include:

Give as much attention to the transition of postgraduate students as to undergraduates.
Do not make assumptions about postgraduate students' subject knowledge; skill levels; maturity or general preparedness for postgraduate study.
Design curricula to support ongoing transition within the compressed timeframe
Provide and tailor support for particular postgraduate cohorts and for staff who support them, including provision of personal tutoring support.
Prioritise building of peer and staff-student relationships. Adopt a coordinated approach to postgraduate transition including the endorsement of a policy to ensure consistency and identification of key staff roles.

References


Bowman, H. (2005) 'It's a year and then that's me': masters students' decision-making, Journal of Further and Higher Education, 29:3, 233-249


West, A. (2012) Formative evaluation of the transition to postgraduate study for counselling and psychotherapy training: Students’ perceptions of assignments and academic writing, Counselling and Psychotherapy Research, 12:2, 128-135

Yorke, M. & Longden, B (2008), The first year experience of higher education in the UK. York: The Higher Education Academy
Transitions as a framework for PGT provision

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Abstract
The framework for PGT provision can be considered within a model, whereby the student is supported while they transition into, and out of, their postgraduate studies. As such, the support provided to the student needs to target the different stages of the transitions timeline in order to successfully engage the student in their learning and enable them to feel involved in the wider community. The Institute for Academic Development (IAD) at The University of Edinburgh has undertaken an initial exploration in order to identify the needs of their PGT student cohort. In addition, the IAD has put into practice a transitions model with the intention of developing and evaluating this model over a number of years. This paper explores whether it is possible to map provision to a transitions framework and whether this provision can meet the expectations of the student cohort.

Introduction
Provision for taught postgraduate students (PGT) is a rapidly growing area for the Higher Education (HE) sector. In 2011-12 The University of Edinburgh had 6,280 PGT students with a varied demographic cohort (see figure 1 and 2). The University and College strategic plans at Edinburgh have greatly emphasised maintaining and enhancing the quality of the learning experience of PGT students, and the current strategic plan has the target of increasing overall satisfaction in the Postgraduate Taught Experience survey (PTES) to at least 88%. The Strategic Plan emphasises ‘outstanding student experience’ as one of the six strategic themes which the University will focus on.

![Diagram 1: AY 2011-2012: Domicile (at time of matriculation) for PGT students](Image)

![Diagram 2: AY 2011-2012: Age Group at start of PGT programme](Image)

Additionally, the University’s 2012-16 Strategic Plan identifies the University’s PGT provision as a vital component of its research, as well as a commitment to enabling PGT students to engage with, and be a part, of, the University’s research excellence. The Strategic Plan sets out ‘research excellence’ as one of three strategic goals.

As is the case in many institutions, the academic development needs associated with PGT study had received little targeted attention under previous structures (Hallett 2010, p226; Tobbell et al., 2010, p.261). Existing studies have focused on areas such as, identity formation and communities of practice (Tobbell et al., 2010); student experience (Hallet,
2010); and study support (Hallett, 2010; Coates and Dickinson, 2012). In the University sector, most attention seems to focus on undergraduate transitions, and on academic/personal development for research postgraduates. This can be partially explained by different funding mechanisms (the extra funding universities received for supporting research students), and by the specific needs of the students. Moreover, undergraduates are new to Higher Education, and rightly, many institutions focus support on this group in order to ensure students are able to undertake their studies to the best of their abilities. However, there appears to be a perception that PGT students do not need support in the same way, and a belief that because they may have completed an undergraduate qualification, they will be able to study at a PGT level without any problems and are therefore "expert students" (Tobbell et al., 2010, p.261-262). This overlooks the fact that many of our PGT cohort have been out of the academic environment for some time, and are coming back to an HE sector that has changed with increasing numbers of students, and a more varied demographic. Based on anecdotal evidence, many PGT students are studying in a different discipline to their undergraduate programme, and may not have experience of the academic culture within that discipline. Finally, the PGT timescale is very compressed, with students expected to quickly be up to speed academically, and working at a very high level (Coats & Dickinson, 2012: 295). Therefore, we would suggest that the complex and diverse PGT student demographic needs a high level of support and that their support needs should take their compressed timeline into account (Nelson et al., 2006, p.2).

In order to provide support to PGT students at Edinburgh, the PGT/Masters team was formed within the IAD in September 2011. This paper covers our activities around the concept of 'transitions' as a framework for PGT provision. In academic year (AY) 2011-12 we piloted a variety of different workshops, and support, which facilitated the implementation of our transitions programme in AY 2012-13. We will continue to pilot new ways of providing support until we finalise a cohesive programme that offers the best support to our students, enables them to have timely access to support services and enhances their engagement and involvement during their time at the University (Nelson et al, 2006, p.1).

This paper presents our transitions framework, and asks for discussion around whether this concept is appropriate for working with PGT students. Two questions are posed, firstly, "can we map provision to our framework?" and secondly "can provision match expectations?". The paper will not cover our activities with online/distance learning students as this will be considered as phase two in the implementation of the transitions model.

**Methodology**

As highlighted previously, research in the area of academic development for PGT students is an emerging area (Nelson, 2006; Hallett, 2010), therefore, this paper proposes a model which draws from existing research and is embedded within the University of Edinburgh context. We initially began our exploration of this area by meeting with the PG Deans from each College to discuss the areas where they felt their students could, and should, develop in order to complete their studies, and become part of the academic community. We then held focus groups with School administrators to begin to build a timeline which identified, i) when students needed support within the academic year, ii) where the appropriate intervention points are for encouraging skills development, iii) and where we can support students to engage with the wider University community. This initial work gave us a basic timeline of intervention points, and an understanding of what support might suit students at different points. The timeline was further refined based upon our experience with other student groups, mainly doctoral researchers.

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50 Tobbell et al. (2010) primarily examines PGR rather than PGT students, the methodology and outcomes are similar to those presented here.
We ran this timeline over two academic years, developing and refining the content over this period. In semester 2 of AY 2012-13 we ran a focus group for students to better understand their experiences of academic development, and what further support would have been beneficial. The participants were identified from a pool of PGT students who had previously attended an IAD study skills workshop. We had eight volunteers, who were from across the three Colleges, and six students were able to participate. During the focus group, students were asked in groups to reflect upon the timeline of a standard PGT programme at Edinburgh, and indicate when they needed support, and how they accessed it. They were then asked to consider three questions: "What supported you most?"; "What one thing would you have liked to know before starting?"; and "Any comments about the support you received for academic and personal development". Focus group participants were given a number, and all comments were assigned to that number to allow us to match up comments without identifying an individual.

In addition, a data analysis was performed on feedback forms from the central calendar of PGT workshops to provide quantitative analysis of our support. The IAD provided 44 workshops in 2011-12 and 57 workshops in 2012-13. In 2011-12, feedback indicates that 90% of participants on PGT workshops rated them as very good or good, and 90% said that their understanding of the subject area was better as a result of attending the workshop. In 2012-13 these figures were similar with 90% rating the workshops as very good or good and 84% stating that their knowledge of the subject was better. Examples of where students have provided specific feedback on how the workshop has helped, include "the best workshop I've been to in terms of balance between lecture, group discussion, and personal reflection" (PGT student, Study Skills workshop) and "The workshop has tremendously influenced my writing as a non-native speaker. It has made me realise the pros and cons of writing scientific topics" (PGT student, Scientific Writing workshop). The data analysis has contributed to the development of the transitions framework which is presented below.

Mapping Provision to a Framework

When considering the provision required for PGT students, there is a need to develop a framework which underpins the support for students both in their transition into as well as out of PGT studies. Accordingly, the following discussion outlines the challenges; the existing provision on offer at the University of Edinburgh; and the proposed framework based on discussions with Schools, students and support services.

Challenges
In relation to the transition in and out of a Masters programme, there are a number of challenges to consider, including the time pressure of a one-year constraint in which the students are to be supported and integrated into the postgraduate programme (Coats & Dickinson, 2012, p.295).

In addition to the time pressures, Coates and Dickinson outline three areas to consider within the learning and teaching support model, and for the purposes of the paper, we will consider the third characteristic, "to design, model and implement appropriate induction and learning support to facilitate international postgraduate students engaging more effectively with their learning and teaching" (2012, p.296). This type of approach is highlighted by Nelson et al. who state that a "coherent, institutionally-managed, program for engagement (curriculum and learning, assisted by professionals and administrative processes and staff, as well as belonging to a learning community) is really what transition students should encounter on arrival at their new institution" (Nelson et al., 2006, p.2).

Providing support and clear signposting at the pre-arrival stage as well as within the first six weeks of a PGT programme is crucial to ensure that the student feels motivated, engaged,
and confident in their academic endeavours in order to overcome “transition shock” (Nelson et al., 2006, p.3). It is for this reason that the implementation of a transitions model will target these key stages within the student lifecycle.

Furthermore, the transitions model which is positioned within the wider university context needs to consider that “transition permeates all aspects of their lives”, consequently, support extends beyond the academic environment (Tobbell et al., 2010, p.262). This challenge is identified within the IAD’s transitions framework and while some support is directly provided by the IAD, it is important to signpost other areas within the University in which the student can be supported in relation to academic and personal requirements.

1.2.2 Existing Provision

There are four strands to the provision of PGT support i) purely School based; ii) School based with IAD assistance; iii) IAD provision targeted at a specific College cohort; iv) IAD generic provision, available to all students. Historically, at the University of Edinburgh, provision for PGT students was School based in order to support the student in their degree programme. The School approach provides workshops for specific cohorts to complement the degree programme, for example ‘Project Planning and Ethics in Scientific Research’ workshop for MVM students. School support has been well received by some students, with one stating “my course organiser offers me great academic advice” (focus group participant, March 2013). The IAD does support some of the Schools with delivering this type of support however we have also developed a programme of centrally based provision, which is the main focus presented here. The IAD’s provision targets students within all three colleges (Humanities and Social Sciences, Science and Engineering, and Medicine and Veterinary Medicine), although, it should be noted that there is a significant difference in the number of PGT students across the Colleges (see figure 3). It is for this reason that some workshops and resources will be specifically aimed at students from a specific College, for example the Technical Writing workshop is available to Science and Engineering students, whereas Study Skills is offered to Humanities and Social Science students and Effective Approaches to Tutorials and Lectures is available to students in all Colleges.

![Figure 3: Number of PGT students by College AY 2011-2012](image)

Arguably, the model of generic study support has been perceived by some as having limitations (Hallett, 2010, p.225). However, the generic support provides a number of benefits to the student, including the opportunity to interact with cohorts from other disciplines; engage with topics not necessarily included in degree programmes, for example leadership; and seek advice and support for the future, such as careers advice or funding for further study. The IAD wishes to expand on the resources and delivery of workshops in AY 2013-14, which is outlined in the following section. Moreover enhancement of these benefits is provided by clear signposting of key support services, such as the Careers Service; the
English Language Teaching Centre, Counselling, the Advice Place and EUSA which strengthens the sense of belonging to the wider University community during the compressed time of the PGT programme (Nelson, 2006).

In addition to the workshops and online resources, in September 2012 a blog was launched (iad4masters.wordpress.com), which provides a communication channel for Masters students to easily access information. The blog is used to signpost different areas of the University to PGT students, as well as providing a platform for testimonials from previous and current students, and staff, adding a personal dimension to the blog. The inclusion of testimonials on the blog was also to reflect an area that students said they appreciated (PGT event comprising of a panel session Feb 2012 and Dec 2012; focus group 2013). One focus group participant stated that "it would be good to have the opportunity to talk about the programme with someone who’s already completed", while another stated that talking to staff and students about their experiences is helpful. These comments have directly contributed to the information on the blog and the delivery of events, such as panel discussions with students and staff - both providing an insight and information on the PGT experience. Significantly the themes of blog posts align with milestones and topics outlined in the transitions framework. Although the blog acts as a conduit to information about Edinburgh, it also has generic information about studying at a Masters level, and is openly accessible.

This paper attempts to illustrate that a combination of support, including signposting and direct contact is beneficial to the student and thus improves the quality of the student experience. Accordingly, we propose a framework which outlines existing and future support for postgraduate taught students.

Framework

This paper primarily outlines the support provided by the IAD at four stages of the postgraduate cycle, including pre-arrival, semester 1, semester 2 and transitioning out of the University onto further education or employment (see figure 4). Based on discussions from a focus group (March 2013) and feedback from workshops, further insight is gleaned as to the needs of students.

The discussions from the focus group highlighted a number of common areas including: the need for clarity in relation to marking criteria; advice on how to write different styles of assessment (reports and essays); clearly defined expectations in relation to assessments; the usefulness of hearing from students who had previously completed the course; and guidance on literacy skills. In addition it was felt that receiving the course handbook (including reading lists) prior to starting the course is very beneficial, as well as having access to more general resources pre-arrival. Tobbell et al. draws similar conclusions and argues that the PGT student can experience a challenging transition into the PGT environment (2010, p. 269). Reflecting on these areas, this has been built into the framework outlined in this paper.

It is intended that the IAD continue to expand on their provision to meet the needs and expectations of the PGT cohort. Currently, the IAD offers over 30 different workshop topics which focus on study skills; writing skills; presentation skills; effective approaches to exams and tutorials; problem solving; and time management. In addition there are online resources which support the PGT student in relation to writing (e-writing online course); academic skills; and literature searching. Similar courses are run in semester one and two, targeting the context and stage on the academic journey of the student. In relation to the one-year timeline, the workshops take place at the following times51.

51 It is recognised that this would differ for the part-time online distance learning Masters programmes.
Figure 4 illustrates the model in which the four main stages (pre-arrival; semester 1; semester 2; and beyond) are further split, where semester 1 and semester 2, target the main areas of development/requirements at key points in the PGT programme. For example, on entering semester 1, the focus is on induction and academic development, whereas the end of semester 1 focuses on exam preparation. A similar approach is taken in semester 2. At the beginning, there is an opportunity for students to have a refresher. This is particularly important for students who may not have done well in exams or coursework at the end of semester 1. Furthermore, the end of semester 2 addresses the dissertation aspect of a taught Masters, as well as looking to the future and engaging students around career or further studies.

The focus group participants were asked what they would have liked to have known pre-arrival and the responses centred around practical advice, encompassing everything from accommodation provision through to academic support, such as identifying the different models of assessment; greater transparency in relation to essay writing and the marking criteria; and a greater awareness of the structure of the specific Masters programme. Based on feedback and drivers within the University these areas have been given significant attention by support services, and Schools and have been highlighted within the framework.

**Expectations**

Managing the expectations of both students and staff is important. In order to do this communication needs to be timely and carefully co-ordinated. Based on responses from the focus group participants, expectations of students can be categorised into four areas: i) university culture, ii) programme specific, iii) study skills and iv) support services. Consequently, these areas address some of the expectations outlined in the different stages within framework: pre-arrival (transition in); semester 1; semester 2 and transitioning out. Therefore, matching the expectations of the students with the framework improves the student experience, as well as supports the PGT student through the different stages of the PGT model. Furthermore, this model aligns with Coates and Dickinson’s outline of key elements which are: enhance induction (week 1 and 2), academic skills (semester 1 and 2...
and 3), dissertation skills (semester 2 and 3), and enhanced blended learning (year-long) (2012, p. 303). This is done through a number of channels, such as pre-arrival material, induction week and the programme handbook.

One area which arose was the topic of managing academic expectations such as multiple deadlines. This was highlighted by a number of the focus groups participants, who stated "that it would be good to have several deadline options". Challenges such as this extend our provision to include workshops and resources which focus on time management; problem solving; study skills; and project management, all in an academic context. While each programme has a handbook, which is likely to include the assessment dates, the student may not appreciate the implications of "the multiple hand-in date" (Tobbell et al, 2010, p.271).

**Future Support**

**3.1 Support for Students**

The IAD would like to develop the framework and expand on the provision currently provided in order to improve the student experience by providing the expected type of support at the key time in the student lifecycle. Referring to Coates and Dickinson (2012: 303), there are areas in which the IAD can support Schools or provide central workshops, including understanding assessments; academic practice; research skills; literature reviews; communication; collaborative working (or group working). In addition, there is a need to support the student in their transition out of the Masters programme and either onto further education or into employment. Figure 5 illustrates the different paths after the PGT student has left the university (for AY 2010/2011) and demonstrates that the vast majority of students go into employment. It is for this reason that a three-pronged approach will be taken which includes aligning the blog posts with the transition framework; collaboratively working with Schools and support services to deliver resources and workshops; and centrally providing resources and workshops. This has been undertaken in semester 2 AY 2012/13, where there has been a focus on aligning blog posts with centrally provided workshops at the right stage of the PGT student's journey, for example exam preparation and dissertation writing. Further support will be provided over the summer, for students who are writing up their dissertation.

A number of gaps are present within the central provision and this was highlighted by participants from the focus group. Areas which will be developed or signposted more clearly, include: data management; general project management, referencing and bibliographic tools, academic writing and further collaboration with support services, such as the Careers Service.

The effective signposting of services and resources is important, as this will enable the PGT student to address any issues in a timely manner and contribute to supporting them in their academic endeavours. The signposting of different resources, such as careers, library provision and IAD workshops was highlighted by the focus group (March 2013). The IAD continually strives to develop the PGT section of the website (www.ed.ac.uk/iad/postgraduates). Areas which are being developed include resources for exam study; dissertations; and support for international students.
3.2 Support for Staff

The nature of the PGT cohort is that the majority of students are only with us for one year; therefore we do not have several years to build their awareness of academic development, and scholarship as is the case with undergraduate students, and doctoral researchers. We recognise the need to support staff in order to allow them to support their students as independent learners. There are two PGT staff networks (developed by the IAD) to aid this, including the IAD Masters Network and the Online Distance Learning (ODL) Community of Practice. Both networks include events, a mailing list and a platform for staff to ask questions and access resources and information (via a mailing list, wiki and hub).

One of the challenges for any large institution is effective and timely communication. It is our intention that there will be a clearly defined communication strategy to underpin the transitions framework, so that students and staff are aware of the support and resources available. This will be achieved via the direct communication channels, such as the Masters Staff Network distribution list and wiki; as well as the IAD’s website and social media channels. In addition, each School will be contacted in advance of AY 2013/14 with information about workshops, resources, the Masters blog, IAD contact details, which can be included in student handbooks, as well as raising the profile of what the IAD can offer their PGT students throughout their academic career. Lastly, there will be timely and targeted information throughout the academic year via a newsletter which will highlight resources and advertise workshops. Furthermore, the University of Edinburgh is currently exploring effective methods of communication to students within the Enhancing Students project and recommendations made by this project will be incorporated into the Transitions model.

Due to the limitation of space, this paper has not outlined the existing and future support provided to staff, which is crucial in the delivery of the transitions model of transferrable skills, personal development and curriculum delivery to PGT students (Nelson et al. 2006, p.6). In brief, the IAD provides a programme of support and networks for staff working with PGT students both on-campus and online distance learning students. This includes information sessions, resources (via the website, wiki’s and email) and ongoing discussions with individuals in various schools and support services.

Evaluation of Framework

The developed framework will be put in place in AY 2013/2014 and will be monitored throughout with an evaluation at the end of semester 2 (2014). The evaluation will gather both staff and student feedback; consideration will be given to the implications related to
provision and different demographics (on-campus and ODL), as well as the profile/identity of the learner from one type of transition to another (Tobbell et al., 2010). The evaluation will also address the impact of employability on PGT provision and whether more vocational PGT courses are becoming increasingly popular.

The evaluation will include case studies, a formal annual review process, consideration of different funding models and approaches, and the quantitative analysis gathered from workshop feedback. The collective data will determine three aspects, i) what has worked well, ii) areas which need reconsidered, and iii) areas which need developed. Accordingly, the PGT Transitions model will align with the University Strategic Plan, student experience data (PTES), and IAD strategic plans in order to strengthen the framework. In addition, the evaluation will assist with the implementation of phase 2 (ODL Transitions framework).

Conclusion

In conclusion, the transitions model is multifaceted and complex, which is to be expected, as it aligns itself with the many challenges that staff and PGT students face (Tobbell et al., 2010, p.266). The transitions model address not only the transition in and out of PGT study but also the transitions and changes associated with the identity of the learner, both in a personal and academic capacity.

The primary aim of this research was to propose a framework which would support the PGT student into and out of their academic journey. Accordingly, the framework addresses the key milestones and challenges which face many of the PGT cohort. The IAD proposes that the central provision of support is a combination of signposting to other areas within the university, provision of resources and workshops and continuing work with Schools. This will contribute to independent learning and integration into an environment in which students can engage with additional support and develop academic and personal skills. Ultimately this will go some way in preparation for their future endeavours, whether that be further study or employment.

It is recognised that further evaluation and development is required in order to understand the needs of the PGT cohort and this includes the growing area of online distance Masters programmes. The University is committed to offering a broad range of online Masters programmes which are based upon our research excellence. Students on such programmes generally study part-time whilst working. Consequently, their needs will not easily align with the one-year on-campus cohort and so a transitions framework for ODL will be phase two of this implementation.

In the introduction we posed two questions: “can we map provision to our framework?”; and “can provision match expectations?”. We would welcome discussion on these questions. We believe we are making progress in mapping our current provision to our framework, the approach for the future is to identify what provision is appropriate at different points within the student lifecycle, and how this can be provided.

The existing provision is drawing from the needs of staff and students and it is the intention of the IAD to develop this framework further to meet expectations and support both students and staff. Therefore, in terms of whether provision can match expectations, this may be unanswerable at this point. Continual assessment and refinement of provision will be required in order to meet the demands of this constantly changing environment. Furthermore, as this is an emerging area of research, horizon scanning is crucial for implementing pedagogical approaches to managing PGT transitions.

Bibliography


Governance and Strategic Planning, [http://www.ed.ac.uk/schools-departments/governance-strategic-planning](http://www.ed.ac.uk/schools-departments/governance-strategic-planning)

Postgraduate Taught Experience Survey 2012, [http://www.ed.ac.uk/schools-departments/academic-services/students/postgraduate-taught/postgrad-taught-survey](http://www.ed.ac.uk/schools-departments/academic-services/students/postgraduate-taught/postgrad-taught-survey)

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Structured writing retreat: A pedagogy for students to construct scholarly writing

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Abstract
The focus for this research is the role of writing in doctoral study: what do students need to learn in order to write a thesis and develop writing strategies for the long term, and how should we teach these strategies? Previous research showed that postgraduate writing groups have benefits, and some students see peer feedback as the most effective pedagogy. The aims of this study were to find out how students adapted structured retreat and investigate the outcomes of writing in micro-groups. Twenty students at four UK universities participated in email exchanges, face-to-face discussions and interviews. Thematic analysis focused on components of structured retreat: fixed time slots, goal-setting and monitoring, discussion of writing-in-progress and social support. The findings suggest that postgraduate students' micro-groups are a pedagogy for scholarly writing. This pedagogy enables learning about scholarly writing and about situating it in academic and professional workplaces and workloads.

1. Introduction
The focus for this research is the role of writing in doctoral study: what do students need to learn in order to write a thesis and to develop writing strategies for the long term, and how can we best teach these strategies? While there is an established literature on undergraduate writing, a pedagogy for doctoral writing is a relatively new idea. Previous research has shown that writing groups have benefits (Lee and Boud 2003), and some students see peer feedback in such groups as the most effective pedagogy (Caffarella and Barnett 2000).
This paper is intended to contribute to debates, which have now been ongoing for ten years, about writing groups and retreats (Aitchison 2009, Lee and Boud 2003, MacLeod et al. 2012, Moore 2008, Murray and Moore 2006, Murray 2011, Murray 2013, Murray et al. 2012). It describes the capacity for constructing diverse writing spaces to provide coherence for doctoral writing.
Drawing on doctoral students' accounts of their writing, this chapter describes how they adapted practices learned at structured writing retreats to write in micro-groups. They met to write in different settings and at different times. They produced writing and constructed writing practices. These students developed the capacity to construct a range of spaces and times for writing. In this sense, structured writing retreat can be seen as a pedagogy for doctoral writing (Aitchison et al. 2010, Murray 2011).

2. The study
This study began at structured writing retreats. The structured writing retreat model involves writing for fixed timeslots - see Appendix (Murray and Newton 2009). Everyone writes in the same room, and in short, 15-minute discussions they set and review writing goals. Participants are usually from different disciplines, and a facilitator keeps the group to the programme (Murray et al. 2012).
For doctoral students there are benefits in revealing stages in the writing process, sharing writing experiences and developing communities of practice (Murray and Newton 2009). However, it has been difficult to sustain these practices and benefits (MacLeod et al. 2012, Murray and Cunningham 2011).
The idea for this study originated in informal reports of students using the structured retreat approach in new ways: having experienced the benefits of structured retreat, they sustained their writing by using that approach in writing micro-groups. The aims of this study were to find out how they adapted structured retreat and to investigate the outcomes of writing in these micro-groups. Thirty participants at seven universities who had attended structured retreats...
writing retreats participated in email exchanges, face-to-face discussions and interviews. There were emailed four questions:
I'm doing some research on writer's groups for a chapter I'm writing for an edited collection called *Writing Groups for Doctoral Education and Beyond: Innovations in Theory and Practice*. If you have a few minutes, can you tell me how you use writing groups?
1. How would you describe what you do? How often do you meet? Where? Always with the same people? How many? Always for the same amount of time?
2. How do you describe what you do to other people who are not in writing groups?
3. What do you like most about writing in groups? What do you like least?
4. Is writing different when you write in a group, even in a group of 2 or 3 people?
I know some of you use groups to extend the retreat effect, and some use retreat timeslots in your groups - OK to talk about retreats too. Similarly, many of you are writing articles and theses - again, OK to talk about both.
Responses totalled over 17,000 words, ranging from 190 to 1,800 words, an average of 600 words per response. Each respondent was randomly numbered, and in the following sections numbers after quotations signify individual respondents.
Thematic analysis of emails focused on the components of structured retreat: fixed time slots, goal-setting and monitoring, discussion of writing-in-progress and social support for writing.
3. Results
Students deployed and adapted the structured writing retreat programme. They used the principle of writing to fixed timeslots, with brief discussions of writing goals. Most of them did not use the same time and space for writing, but wrote in many different ways:
'I have written in groups in a range of settings:
- I have attended formal writing retreats of between 8 and 14 people writing for 10 hours across 2 days with a preparation evening beforehand.
- Writing groups in my academic department, meeting occasionally on a pre-planned basis to write for a half- or full day.
- Writing days at colleagues' houses, again writing for around 5 hours.
- Paired-writing sessions for pre-determined times, writing in a room in a colleague's department.
- Coffee shop sessions meeting for 60-90 minutes at the beginning of a day'. (1)
They met in groups of two or three, every three or four weeks for 90 minutes. Some wrote in cafés off-campus; some booked a room on campus for a day or half-day; some did both. The fixed time slots were important: 'It is short, sharp and sweet, and I never would have found time for writing throughout this year without this structured approach'. Goal-setting and monitoring were practised regularly: 'Two of us meet regularly (fortnightly if we can) for 3 hours (ideally we do two slots of writing - first we set out our objectives and then we write)' (23).
While institutional practices impinging on their capacity to achieve their scholarly writing goals, micro-groups addressed this problem. They discussed writing-in-progress with those who were 'similarly motivated' to write: '[A colleague] and I make a meeting (we don't call it writing as it is then protected from colleagues)'. Social support was key; they relied on each other to keep the group going. However, the approach did not always work: planned writing slots were lost when participants were 'bogged down in teaching' or forced to attend meetings, and this increased levels of resentment and anxiety related to writing.
Micro-groups helped them to work through these anxieties and progress with their thesis writing:
I used the organised writer's retreats to write up my entire doctoral thesis. During a period of 18 months I attended nine of these 2 and ½ day retreats. These took place at locations commutable from Glasgow, however far enough away to prevent any distractions from home. The groups of students who attended these retreats were very varied, with none of them coming from the same background as myself…. Off the back of these writer's retreats I got to know other writers who were keen to continue the retreat structure back home. I met
up with 1 other writer on approximately 4 occasions outwith the organised retreats to do more structured writing. On one occasion we met in a coffee shop. We kept to the retreat timetable’. (8)

‘I used retreats to free write chapters of my thesis and found I could get to a first draft at retreat which I’d then amend and edit over 3 or 4 group writing days & I used this model for 4 of my thesis chapters’. (25)

While times and places varied, the composition of micro-groups remained constant. With one exception, they always wrote with the same people: ‘[I am] better focused with fewer distractions. I seem to be able to sustain writing far better, even with only one other person’ (11). By contrast, discussions of writing were not happening in their academic and professional settings:

‘No one else in my Dept talks about writing practices. They all present themselves as over pressured and far too busy to write…. this can’t be the case as they are all publishing. But writing practice is denied and not shared’ (9). Privileging the act of writing in this way helped them to overcome the many potential barriers - both external and internal - to their writing:

‘The structure of the group acts as a physical barrier to distractions. Sticking with the writing process, not being distracted, not checking emails, not looking up references on the internet are all part of the process of writing in a group. As a result, because the threats of disengagement with writing are largely removed, the writer is only left with their writing, and even though it is sometimes difficult, by sticking with and staying with the writing process, epistemological clarity does emerge’. (16)

By far the most powerful factor in the motivation to initiate and continue with micro-groups was the presence of others writing: they talked about empathy, support, sense of shared responsibility, accountability, companionship, being invested in or committed to the group, the ‘collective’ (2), respect, trust, ‘common experience’ (4), like-mindedness (19), camaraderie (25, 26), writing relationship’ (27), ‘positive pressure … positive competition’ (27) and fellowship (33):

‘this isn't just sharing a space together (sharing an office or the like) it needs to be that both are engaged in the group writing ethos - because you create tacit rules and obligations - to show up, to keep to time, to make good use of the time, to be supportive’. (25)

These terms suggest that they developed positive relationships around doctoral writing and that these relationships sustained the structured framework that worked so well for them and helped them make sense of their writing, while, crucially, making tangible progress with their thesis writing. There is some evidence - from students and academics and researchers in micro-groups - that this approach can continue to support writing after the doctorate:

‘I make quite a lot of use of social writing. In fact, it is probably the most important component of my academic life, as it enables me to balance a challenging job and busy home life’. (1)

Most doctoral courses include some instruction on writing. Some include practice in giving and receiving feedback on text; others focus on ‘substance, organization and style’ (Klinger et al. 2005: 14). However, most doctoral training courses do not privilege the act of writing over everything else, as structured writing retreats and writing micro-groups do. These micro-groups show that doctoral students can create a ‘social, situated practice’ for their writing (Aitchison and Lee 2006), through 'social writing' experienced at structured writing retreat.

4. Implications

These findings suggest that postgraduate students' micro-groups are a pedagogy for scholarly writing. This pedagogy enables learning about scholarly writing and about situating it in academic and professional workplaces and workloads. However, the findings also raise questions about the place of scholarly writing in these workplaces, questions that this pedagogy can prepare postgraduates to address. Their micro-groups are evidence of self-development and of the intrinsic motivation they will need to sustain scholarly writing over the long term.
This is not, therefore, simply about creating a supportive culture for student writing (Clughen and Hardy 2012). Instead, it is - or should be - a component of doctoral pedagogy. It may also be a coherent way of practising writing after doctoral completion, in the sense that it is a practice that brings coherence to academic writing.

5. References

Appendix: Structured Writing Retreat Programme

Day 1
5-5.30pm Introductions, writing warm up, writing plans.
5.30-6.30 Writing

Day 2
9.15-9.30am Discussion: planning and goal setting
9.30-11 Writing
11-11.30 Break
11.30-12.30 Writing
12.30-1.30 Lunch
1.30-3 Writing
3-3.30 Break
3.30-5.30 Writing

Day 3
9.15-9.30 Discussion: planning and goal setting
9.30-11 Writing
11-11.30 Break
11.30-12.30 Writing
12.30-1.30 Lunch
1.30-3 Writing
3-3.30 Break
3.30-4 Taking stock of outputs and outcomes, new goals
Quality as Transformation: Educational Metamorphosis

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Introduction
Quality as transformation is a main theme of quality enhancement in the UK higher education sector (QAA, 2009). It emphasises student-centered learning and encourages students to take a leading role in assuring the quality of their own education (Harvey, 2006). Quality as transformation is closely related to the notion of 'transformative learning', which grows out of a confluence of post-60s radicalism and critical pedagogical theories (Giroux, 2001), and an interest in adult education as part of social welfare (Mezirow, 1990, 2000). Students are expected to not only engage with knowledge but also develop their capacity to understand and question existing ideas and assumptions that inform their experiences and understandings of society (Herod, 2002).

Harvey and Knight (1996) developed the concept of transformative learning by arguing that quality could be transformation. Harvey (2009) interpreted transformation as more than a significant cognitive change towards a more rational frame of thinking as Mezirow suggested, but as a continuing process of students becoming more confident, challenging assumptions, developing new understandings and acting upon them. The change in conceptualisation was described as either an accumulation of meaning transformation, or a disorienting dilemma, triggered by a life crisis or major life transition.

Transformation has been perceived as the most appropriate definition of quality in higher education. For example, Srikanthan & Dalrymple (2003) argued that it could address the concerns of all stakeholder groups. However, both transformation and quality are elusive terms. They are subjected to different interpretations. For example, the academic community tends to see quality as external, alien and separate from their work (Barnett, 2003). Quality is perceived as power (Morley, 2003), and as bureaucratisation, impression management and conformity (Newton, 2002). By contrast, students are more pragmatic and understand quality as leading to them being able to 'pass exams' rather than as transformation of their thinking processes (Cheng, 2011).

Despite academics' lack of enthusiasm for embracing quality as a management idea, quality has been seen and used by the Government as a tool for addressing issues of teaching and learning in higher education (Harvey & Asking 2003). Quality was regarded as meeting the expectations of customers (DfES, 2003). It has been used to evaluate teaching performance and the provision of learning resources. Moreover, rising fees produce a challenge for universities in delivering quality as 'value for money' (Molesworth et al, 2009). This has led to an impression that quality is essentially pragmatic and outcome-driven.

One explanation for these different interpretations is that understanding of what quality means is originally derived from business and industry, so it triggers discussion within academia about its applicability to higher education (Owlia & Aspinwall 1996). Another explanation is that the complexity of higher education increases the difficulty in conceptualising quality. For example, its different component parts, like teaching and research, will have different requirements for quality (Sahney et al, 2004). Despite the complexity and difficulties in understanding the concepts of quality, quality as transformation has become the main agenda in the current quality enhancement process in the UK. However, very little research has examined the relationship between quality and transformation. There is little indication of how quality can be equated to transformation during the learning process. This research addresses the gap in the literature and explores how to understand quality as transformation, and how quality and transformation are perceived as interrelated at doctoral level education. The complexity of the learning process (Barnett, 2007) will be considered, as learning has different dimensions which relate to different notions of quality and transformation. These learning dimensions include: the learning of knowledge and skills, the emotions and motivation, and social communication
and cooperation (Illeris, 2004). Another reason is that learners, especially undergraduates, may be unaware that they are going through a process of transformation, until after the actual transformation has taken place. By contract, doctoral students are mature learners who are more capable of reflecting on and interpreting their transformative learning experience than undergraduates (Fenge, 2012).

Understandings of transformation

This paper considers that various approaches have been adopted to conceptualise transformation. They include: Freire’s (2000) view of social transformation; Jack Mezirow’s (1990, 1991, 2000) notion of rational and psychocritical transformation; Daloz’s (1986; 1999) approach of developmental transformation; Dirkx’s (1998) linking transformation with spirituality; and a neurobiological perspective of transformation by Janik (2005; 2007). Believing that education was for the purpose of liberation, Freire argued that if empowered by new perspectives, people could act upon them to transform their world into a more equitable place to live. Sharing the notions of emancipatory education, Mezirow (1991; 1996; 2000) interpreted transformation as a process of individualisation and a lifelong journey of understanding oneself. Rational thought, reflection, emotion and social context are the key factors to achieving transformation (Mezirow, 2000). Daloz (1986; 1999) suggested a developmental approach to foster transformation. He believed that education could help students to make sense of their lives, because they could learn to negotiate developmental transitions and become changed in the process. Dirkx (1998) related transformation to imagination in that it would lead to a deeper self-understanding and mindfulness. Janik (2005; 2007) proposed neurobiological transformation. His approach explains that transformation: requires discomfort before discovery; is rooted in and strengthened by students’ experiences, needs, and interests; and demands that educators understand the knowledge base of neurobiological systems. Depending on the emphasis on individual or social change, the above views can be classified as personal and emancipatory transformation. The neurobiological and psychocritical perspectives focus on individual change, and little is considered of context and social change and their relationship to transformation. By contrast, social, developmental, and cultural-spiritual transformations are emancipatory, given that they consider social change and see the individual and society as one.

Promoting transformation

Transformation has been promoted through developing transformative learning in the international higher education sector (Lange, 2004; Fetherston & Kelly, 2007; and Canton & Wright, 2008). The essential conditions and techniques for transformative learning to take place have been extensively researched. For example, Cranton (2000; 2006) revealed that transformative learning could be uncomfortable and complex because academics were not trained educators and students might not have the skills required for reflection. Berger (2004) explained that it was because transformative learning involved the development of an acute awareness of students’ attitudes, personalities and preferences over time. Cranton recommended that providing opportunities for students to articulate their assumptions and recognising their learning styles would help students critically question their perspectives and then revise and act upon them. However, there were criticisms on the limitations of transformative learning. They include the argument that transformative learning is too narrowly connected with the formal field of adult education (King, 2004), and is mainly concerned with the rational process of learning (Dirkx, 1998), ignoring the psychological drives and the role of intuitive and emotional processes (Boyd & Myers, 1988; Taylor, 1998). Ball (1999) pointed out that strong emotions instead of rationality often accompany students’ transformation. According to Moore (2005), academics express their difficulty in embracing transformative learning in practice. One reason is that it could take place only when students are mentally and emotionally ready, and when the institutions are able to foster and nurture these transformative experiences. Another reason is that the complex nature of transformative learning (Cranton, 1996) makes it hard for academics to know when students are ready to be transformed, and what they could transform students into. The third reason is that
transformation is not designed to have a particular endpoint, but embedded with the purpose of empowerment and freedom of thought, so might be invisible during the learning process. In spite of the concerns with transformative learning, transformation has been related to the concept of quality in the UK quality enhancement process. Prompted by the consideration that little research has been carried out into how to apply quality as transformation to educational practices, this paper will analyse and interpret these concepts at PhD-level. It is based on the belief that doctoral students are more likely than other students to possess the meta-cognition to reflect on their own learning (Green & Macauley, 2007). Therefore, they are in a good position to identify and understand their own transformation.

Research methods
Two English universities were selected as research sites. The two institutions were chosen on the basis of their difference in research intensiveness. One institution is an 'ancient' world-renown university and the other is a pre-1992 institution, ie. it possessed university status before the enactment of the Further and Higher Education Act 1992. An interpretative research design was employed to address two research questions:
How can quality as transformation be applied to PhD education?
How are 'quality' and 'transformation' interrelated at PhD level?
The interpretative approach (Holliday, 2002) enabled the researcher to consider in depth how PhD supervisors and PhD students understood quality and transformation. Supervisors were in a unique position to interpret the quality of PhD education, as they were able to observe and facilitate their students' progress. PhD students could produce insider perspectives on transformation through reflecting on their own transformative experiences.
There were two stages in the data collection. Stage one comprised semi-structured interviews with 16 PhD supervisors and 16 PhD students drawn from three disciplinary areas in the two universities - education, physics and engineering. The subject differences allowed both academic and practice-based dimensions of learning to be explored. A semi-structured interview was adopted because it is flexible and explores perspectives in depth (Denscombe, 2003). The researcher adapted the interview questions to suit the interviewees' roles, and explored their understandings of quality and transformation.
Stage two consisted of a follow-up workshop. Previous interviewees exchanged their views of quality and transformation by employing methods of collage making (Butler-Kisber & Poldma, 2009). This workshop stimulated different perspectives of quality and transformation using both words and images. Content analysis (McKee, 2001) was used to analyse the data. It assessed the importance of a particular idea, such as the meanings and dimensions of quality and transformation, by how frequently it appeared in the text. NVivo software was used to facilitate the coding of the qualitative data (Welsh, 2002). It maximised the extent to which the data could be analysed in a rigorous and transparent manner (Cresswell, 2006).

Findings
This research revealed that interviewees held different attitudes towards the concept of quality as transformation. University type appeared as a factor that had little influence on the attitudes. Two out of 32 interviewees did not perceive 'quality as transformation' as a relevant model to doctoral education. They regarded higher education as an enabling process, instead of producing designated changes in learner states of knowing or being.
Eight interviewees supported the idea of quality as transformation. Their argument was that if students had not been changed through the process of doing the PhD, then it was not a successful experience. They related quality as transformation to new information, knowledge and skills, the 'right attitude' to learn, and the capability to do research.
The other 22 interviewees believed that quality as transformation was a laudable ideal but they doubted its applicability to all subject areas especially, for example, engineering. They regarded the phrase as educational jargon. For example, one supervisor interviewee explained why it was mainly applied to educational studies:
I suppose it's a trend or an approach in education to make an emphasis on the change of behaviour and attitudes in a learning process. (PhDS8)

There was perceived difficulty in applying quality as transformation to PhD education. Most interviewees expressed the belief that both quality and transformation could not be measured through identifying changes in students' states of knowing or believing. For example, a student interviewee in education argued against the 'quantification' of quality by the frequency of supervision:

I suppose if one looks at the DPhil certainly you'd not just want to look at the quantification of the education you receive, um, you look at the quality. I don't have to see my supervisor for two/three months, I'm happy with it, until I produce whatever product I want their comments on .... (PhDS10)

This comment suggests that while there is increasing emphasis on contact hours in higher education, at PhD level the extent of supervisor-supervisee contact does not necessarily equate with an increase in quality. More than half of the interviewees interpreted quality and transformation as different. One distinction was that transformation could be unplanned, while quality was normally related to indicators in practice or to expectations. Another difference was that quality and transformation could be two parallel processes. For example, a student interviewee pointed out that quality in the engineering discipline was closely related to standards and criteria, due to its concern for the quality of life and safety. But the concept of transformation was linked with the images of change and uncertainty. He therefore described quality and transformation as completely unrelated in engineering:

I think it's possible that someone could have a really good quality learning experience ... and not necessarily have a transformation. (PhD2)

The third perceived difference was that quality and transformation were related to different types of knowledge acquisition, either instrumental or emancipatory (Haberma, 1971). In other words, if quality is outcome-oriented, the call for quality is likely to lead to instrumental knowledge. This differs from the expectation that the call for students' transformation would easily lead to emancipatory knowledge, because it would free learners from conforming to indicators and standards.

Understanding quality

In order to explore the relationship between quality and transformation, this research examined how interviewees interpreted these two concepts separately. It reveals that quality was described as abstract, personal, and dependent on the institutional ethos. Most interviewees from the 'ancient' world-renown university were satisfied with the quality of their PhD education. They equated quality to their university brand. They believed that the quality of learning would be guaranteed in a top university, because it was more likely to have more learning resources than other less prestigious universities.

Nearly all of the interviewees agreed on the complex nature of quality, which has been extensively discussed in previous research (Barnett, 2007; Srikanthan & Dalrymple, 2003). They emphasized their uncertainty about the purpose of quality and issues connected with who benefits from it. Eleven interviewees felt that there was no shared understanding as to what students were entitled to do to achieve quality in learning, and how they could support students to achieve that, as the standards of quality varied with institutions and supervisors. The managerial approach to assessing quality was described as a political game, because it might reduce the quality of PhD education, if it created a rigid structure for what could be done within the programmes. The concern of quality requirement corresponds closely with a view expressed by Harvey & Asking (2003), Morley (2003) and Newton (2002) that the concept of quality could become a control over academic work. This critical view of quality was strongly shared by interviewees, in particular, from the discipline of education.
In the collage-making workshop, participants used a variety of images to represent quality. The images of a razor and a tiger were frequently used to express their concern that the use of quality for management purpose might reduce the quality of PhD education (See Pictures 1 & 2). Despite the concerns, more than half of the project interviewees acknowledged quality as being meaningful and valuable. They translated quality as meaning ‘good’, because good was a word that forced them to take sides and to be clear about what they wanted. They argued that quality should be treated as a value to be pursued instead of being used for evaluation purposes mainly.

Dimensions of quality
The complexity of quality was discussed during the interviews and the workshop. Eighteen interviewees explained that complexity by illustrating its four main dimensions: university dependence, resource availability, supervisory interaction and learning outcome. To be specific, quality was perceived as higher education contingent, where there was a call for quality. Resource availability means that quality depended on the availability of educational inputs and learning resources, such as funding, library and computer facilities. This dimension was perceived as linking closely with the university’s reputation and brand, because the prestigious and research-intensive universities were more likely to get better resources.

Most interviewees were aware that good provision did not necessarily produce a quality experience for students, as students’ commitment in learning was a key factor. This is because learning involves not only the acquisition of knowledge and skills, but also emotion and motivation (Barnett, 2007; Illeris, 2004). Supervisory interaction was the third perceived dimension of quality, in particular, the extent to which a PhD student was supported to achieve their learning expectations. This dimension was viewed as very important in achieving students’ transformation. The outcome of PhD education was defined as the fourth dimension of quality. It referred mainly to publication, passing the viva, graduation rate, and career options. However, most interviewees perceived a danger in using indicators to assess quality because it would make quality appear as an outcome, as opposed to an ongoing process to improve oneself, weaving its way through the PhD learning experience.

Understanding transformation
As for the concept of transformation, ten interviewees described this word as educational jargon, used for institutional marketing purposes. Transformation was perceived as contradictory to the call for quality, because the latter shaped the expectation of transformation and made it appear as a deliberate outcome, but transformation is originally related to realising learner’s potential. The development of transformative learning was suggested as an effective approach to achieve transformation (Cranton, 2006; Lange, 2004; Taylor, 2008). Most interviewees from engineering and physics backgrounds expressed little interest in transformative learning. By contrast, the majority of interviewees in education had more knowledge of this term, but they acknowledged that learning by any type could be transformative.

Forms of transformation
Research suggests that transformative changes could be individual or social (Freire, 2000; Mezirow, 2000; Daloz, 1999; Dirkx, 1998; Tisdell, 2003; and Janik, 2007). This project revealed that most interviewees related PhD students’ transformative experience to individual changes rather than social ones. Student transformation was classified under five main types: intellectual, critical, personal, emotional, and physical. There was little evidence that university type and subject differences affected interviewees’ understanding of transformation.

Intellectual transformation was described as the development of thinking that led to changed perspectives about life and subjects. It was perceived as an important pathway for students
to complete their PhD and to achieve the expected quality. It was interpreted as a cognitive process, where learners’ knowledge became more integrated. Visions of caterpillars emerging as butterflies were popular images for this. New ways to solve research problems were mostly quoted.

Critical transformation was perceived as progressive, starting with uncertainty and developing from students’ reflection and discussion. The changes produced could be either positive or negative. Personal transformation was associated with a change in individuals' opinions, behaviour and attitudes. Increased commitment to learning was frequently mentioned by student interviewees. Emotional transformation was mainly referred as a psychological change. It overlapped with intellectual and personal transformation in that individuals felt motivated to learn and became committed to make changes. Physical transformation was viewed as involving a change of environment or an age-related physical feature change.

Discussion
The complexity of quality and transformation as separate concepts further explain why it was perceived as difficult in applying ‘quality as transformation’ to PhD education. In order to deepen the understandings of quality, this section is going to elaborate on the overlaps between quality and transformation, and then illustrate why half of the interviewees interpreted quality as a value to be pursued.

The outcome of PhD education was viewed as an overlap of quality and transformation. Its underpinning belief was that if a PhD student was happy with his learning outcome, he would probably become satisfied with the quality of his learning. Interviewees described the outcome as the fourth dimension of quality, and referred them to publication, passing the viva, graduation rate, and career options. The outcome intertwined with student transformation through taking on the forms of intellectual, critical, personal, emotional and physical changes.

Interviewees were well aware that PhD outcomes were subject to individuals' expectation for new information, knowledge and skills, the right attitude to learn, and the capability to do research. In other words, some PhD students might push themselves harder in striving to be excellent, so they might experience more transformation than those who are less hard working. Moreover, a student might change his expectations upon the discovery of new possibilities, so their learning outcomes would vary over time. This suggests that PhD outcome is context contingent, depending on individuals’ specific expectations.

However, in the current higher education environment, the quality of PhD education is measured by standards and criteria. This evaluation practice further widens the gap between stakeholders’ beliefs concerning the quality of PhD education and what is evaluated as quality. This gap explains why more than half of the interviewees experienced difficulty in defining quality, but they described it as a value to be pursued. They emotionally attributed goodness to quality. The term quality made them become clear about what they wanted from PhD education. They therefore described quality as a value, ie, a common language to express their expectations for something valuable and meaningful. According to Perry (1914), value is a qualified satisfaction of interest (Perry, 1914). In this sense, the interviewees’ desire to fulfil their interest and expectations for PhD education played an essential role in their perceiving quality as a value.

Quality as a value seeks to capture the different motives and attitudes among these interviewees, such as, scepticism about quality being used as an educational jargon and expectation for a good PhD learning experience. The interviewees were sceptical about the current practice of quality evaluation, because its focus on standards and criteria ignores the intrinsic and hard-to-measure nature of individual learning. However, they still expected good PhD education, so they felt that the meaningfulness and intrinsic nature of quality would be recognised through viewing it as a value to be pursued.

Conclusion
To summarise, this research revealed that there were different attitudes towards the concept of quality as transformation. Most interviewees found it a good idea, but they were not sure
about its applicability to all subject areas, for example, engineering. The difficulty in measuring quality as transformation was expressed and there was a concern that it was hard to quantify both quality and transformation.

This research further highlighted the complexity of both quality and transformation. Quality was interpreted as abstract, personal, and institution dependent. There was a gap between what interviewees expected of quality and what was evaluated as quality. More than half of the interviewees acknowledged quality as a value to be pursued, in order to fulfil their expectations for PhD education. There are potential benefits in perceiving quality as a value. One is that it might generate stakeholders’ internal sense that the concept of quality is good and important. Quality as a value will therefore positively influence their attitude and behaviour towards learning. Another benefit is that quality as a value would encourage stakeholders to use quality as a common language to collaborate to create a more positive learning experience. The third benefit is that an improved quality management system would emerge. This is because quality as a value fills the gap between stakeholders’ belief in PhD education as developing knowledge and skills and the existing practice of evaluating quality for management purpose. The gap would increase the attention to stakeholders’ belief in quality, and consequently stimulate relevant actions to improve quality for more positive learning experience.

Finally, this paper identifies that quality has been used mainly for assessment purposes in real practice. The gap between perceiving quality as a value and the practice of evaluating it by indicators makes quality appear as contradictory and confusing. This would further produce barriers for stakeholders to fully understand the meaning of student transformation. Transformation is originally associated with developing learners’ potential. However, if measured for the purpose of quality evaluation, transformation would appear as a deliberate outcome, rather than a progressive process where students produce changes and develop their capability to understand these changes.

The difficulty in measuring quality and transformation produces a series of questions to be considered. One is the purpose of quality as transformation in PhD study, for whom and for what? Another question is whether higher education is ready for quality as transformation. Could it provide a context to facilitate students’ transformation without being constrained by quality indicators and standards? The third question is how to pursue quality as a value. Who will be in the position to negotiate with stakeholders on the basis of their expectations? And finally how do we encourage the fostering of quality as a value by stakeholders when there is increasing demand for using the term quality only for a summative evaluation purpose?

References


Supporting Enhancement Through Quality Processes

Embedding quality at strategic, operational and governance levels - A case study.

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ABSTRACT: This paper discusses the change in culture in Academic Quality Assurance and Enhancement at the University of Hertfordshire over the past five years. Co-location and greater alignment of the Academic Quality and the Learning and Teaching teams has brought a range of improvements in terms of policy development; operational effectiveness; and partnership working. A new focus on the Student Experience has resulted in enhanced governance arrangements with more effective strategy development and better communication with staff across the Institution. A major institutional reorganisation was an opportunity to build on the above-mentioned developments by embedding new aligned leadership arrangements and develop further our working relationship with our Students' Union. This combination of strategic, operational and governance developments has strengthened our institutional platform for Academic Quality Assurance and Enhancement.

1 Introduction

The University of Hertfordshire is a post-92 institution with 27,500 students (including 2,000 international students) and over 2,000 staff. Previously, central structures associated with academic quality assurance and enhancement had a tendency to be process driven with a loss of focus on learning and teaching in relation to the student experience. Harvey's review of quality evaluation in the UK (2005) argues that quality assurance processes focusing on compliance and accountability are insufficient. There needs to be a more developmental approach (Srikanthan and Dalrymple, 2003) combined with an ability for self-critique by academic communities (Harvey, 2005). Over the past five years, there has been such a shift in culture at the University of Hertfordshire facilitated by alignment of learning and teaching with academic quality assurance at all levels within the institution. The appointment of a Pro vice Chancellor (PVC) with a specific Student Experience brief was key to the cultural shift as was the emphasis on partnership working with students.

2 Academic Quality and Learning and Teaching

Prior to 2009, the Academic Quality Office Directors and the Director of Learning and Teaching worked largely independently of each other. They were located in different parts of the University and opportunities for working together were not fully appreciated.

The Learning and Teaching team had been evolving over a number of years, with the backdrop of the University's HEFCE Centre for Excellence in Teaching and Learning (CETL) the Blended Learning Unit (BLU) having a significant impact on its ethos for supporting the enhancement agenda. In 2005 the BLU was established at the University and its staffing model and practitioner-focused ethos permeates the current central support team for Learning and Teaching, the Learning and Teaching Institute (LTI). The LTI has few permanent members and its staff are mainly active teachers seconded from around the University on a fractional basis for fixed terms. This means that the Centre has direct links with the academic Schools, providing two way channels of communication. As well as
bringing a pragmatic approach to its activity, it means that there is a fundamental credibility underpinning its conversations and development activities with colleagues. This grounded approach to support has brought about improved working relationships across the University.

2.1 The co-location of Academic Quality and Learning and Teaching teams

In 2009 the Academic Quality Office (AQO) and the Learning and Teaching Institute (LTI) at the University of Hertfordshire were restructured within the umbrella of Academic Registry, and a new team was developed to provide professional support to both teams. This co-location and the new professional service, Academic Services, has ensured greater connectivity between the University’s Academic Quality Assurance, Enhancement and Learning and Teaching functions.

Bringing staff together in an open-plan office has immediate benefits in terms of the greater opportunities for informal conversations that arise. Positive environments created within open plan spaces can help develop a sense of community and provide opportunities for interaction and collaboration (Pinder et al., 2009). The open plan arrangements within Academic Registry helped the teams get to know each other better, and enabled a greater understanding of each other’s remits. There is much greater alignment of missions than previously and opportunities for closer working both operationally and strategically have been identified. The increased level of informal contact has led to greater formal contact as Academic Quality and Learning and Teaching groups now establish cross-representation on almost all groups and committees as a matter of course. It also more closely reflects management structures within academic Schools, where Associate Deans (Academic Quality Assurance) and Associate Deans (Learning and Teaching) take responsibility for the quality of student experience of taught provision.

More specific ways in which the co-location has improved the University's support for Academic Quality and Learning and Teaching include:

More effective validation and review processes, including the embedding of Learning and Teaching and Assessment-for-Learning principles of good practice into the curriculum development process, through revised programme development and review guidance and associated LTI guidance. The Learning and Teaching team are now also actively involved in the development and approval process, by supporting programme development teams and being members of validation and periodic review panels. This extends to the University's Collaborative Provision, where this support is particularly welcomed.

Joint policy development, including the separation of assessment guidance into (regulatory) policy and (non-mandatory) guidance; the development of module descriptors to provide appropriate information for the preparation of Key Information Sets (KISs) at programme level; and joint development of School Annual reporting requirements. In the past, many of these policies would have been developed by either the AQO or the LTI, with limited involvement of the other. They are now jointly managed through an advisory group of the Pro Vice-Chancellor (PVC) (Student Experience), including the Director (and Deputy) of Academic Quality, the Director of Learning and Teaching, Deputy Head of the LTI and the Assistant Registrar with responsibility for Academic Services.

Joint staff development, including joint workshops for senior staff on programme development, programme validation and periodic review, and effective programme management; and tailored events for collaborative provision link tutors, programme tutors, Associate Deans (Academic Quality Assurance) (AQA) and Associate Deans (Learning and Teaching) (L&T).
**Enhanced data-informed activity**, with both teams working on the analysis of, and University support for responding to, the National Student Survey (NSS), (International) Student Barometer and module-level student feedback data; and joint membership of a Student Performance Monitoring Group (a Working Group of the Student Educational Experience Committee) and associate projects, such as a Black and Minority Ethnic (BME) student success project. Overall this enables both teams to join up their thinking in this important area of data-informed enhancement activity.

**Joint working on the QAA Quality Code**, including joint responses to QAA consultations on draft chapters, and co-ordinated responses to newly-published chapters (with the Learning and Teaching team taking the lead on developing a response to Quality Code Chapter B3 (Learning and Teaching)).

**3 The new focus on the Student Experience**

One of the early actions of the newly appointed PVC Student Experience was to initiate the development of a Student Experience Strategy and to commission a review of the University's main quality committee, the Academic Quality and Enhancement Committee (AQEC). Jackson (2003) argues that transformational change calls for a complete re-examination, re-conceptualisation and re-direction of existing practice and this was evident in the early actions of the PVC Student Experience.

**3.1 A new committee and its underlying principles**

The PVC Student Experience charged a small group to review the focus of the AQEC in considering its remit, its terms of reference and its membership, with a view to ensuring that any new proposals were fully aligned with the student-centred emphasis of the institution's activities as outlined in the University's Strategic Plan (2010-2015) and the newly developed Student Experience Strategy.

The review identified that the AQEC had tended to prioritise process and protocol based discussion over enhancement activities. There was a sense of compliance related quality assurance issues overwhelming learning, teaching, assessment and other student focused discussions. The membership of AQEC reinforced this perception with most members having some sort of academic quality responsibility but little or no teaching commitment.

The review's recommendations ensured that the proposed Student Educational Experience Committee (SEEC) focused its activities on the student educational experience, promoting the importance of teaching excellence, whilst ensuring mechanisms for the maintenance of academic standards. The proposed formation of a subcommittee; Academic Standards and Audit Committee (ASAC) would provide a forum for the detailed discussion of policy and compliance issues.

However, it was not only the membership and terms of reference of the new committee that differed from AQEC in its ways of working. Crucially, the new committee aimed to be different in its conduct and identified that it should be a forum for vibrant discussion and not be burdened with packed agendas and rubber stamping of pre-determined policies. To develop the new culture, the first meeting reminded members of the seven principles of public life:
The members made a commitment to abide by these principles and this commitment is reiterated at the first meeting of each new academic year. The committee also adopted a new way of working when discussing key items. Small group discussions are often facilitated to ensure that all members can contribute effectively. This is particularly valuable as it enables deeper consideration of issues and the stimulation of more ideas. Feeding back from group discussions enables a collective decision to be made by the committee representing the views of all members.

In addition to formal minutes of the meeting, a one page accessible communiqué which summarizes the key discussion points facilitates dissemination of SEEC decisions to staff in all Schools. It is important to ensure that all staff are aware of decisions and discussions that so often take place in closed boardrooms with limited numbers of staff.

As part of SEEC's on-going commitment to enhancement, an evaluation of the revised committee took place after its first year of implementation indicating the enhanced contribution of the committee. Committee attendance is high (average 86%) and members report that they feel very confident to contribute to discussions because of the inclusive nature of the committee. The Committee has transformed the dialogue in relation to both the student experience and learning and teaching.

3.2 Operationalizing and monitoring strategy through an annual report
The Annual School Student Experience Report is pivotal in ensuring that the decisions taken by the Student Educational Experience Committee (SEEC) culminate in enhancements to the student educational experience consistent with focus of the committee. Added to this, the process surrounding the approval of Annual School Student Experience Report is collegiate, evidence based and action focused.

The Report and its accompanying Audit Report template are both structured so as to encourage Schools to develop actions aligned with the University's Strategic Plan, the Student Experience Strategy and the implementation of these strategies, as agreed at SEEC. For example, the University sets targets around membership of the Higher Education Academy (HEA) and improved scores in National Student Survey (NSS) and there is an expectation that these matters are specifically addressed by actions in the Action Plan. Furthermore, on an annual basis, SEEC develops priorities within the Student Experience Strategy and the reporting requirements ensure that Schools take actions to address the agreed priorities.

The Report requires Schools to provide evidence of achievements and enhancements in a way that can be measured by the committee members who audit the Report. For example, the section of the Report on learning and teaching requires detailed consideration of student feedback data including the NSS and individual staff Student Feedback Questionnaire (SFQ) results. Other sections of the Report consider and require actions on data including student achievement (module/award data) student continuation and employability. Making use of the evidence based data and the School’s response to this, auditors are asked to consider whether the Action Plan items are appropriate, realistic and likely to enhance the student experience.

The firm focus of the School's energies on the student experience is further illustrated by the inclusion in the Report of an account from the School Student Representative Organiser (SSRO). This serves as a tool for evaluating student engagement in quality enhancement and encourages School Action Plans to be aligned to the actual experience of students in the School.

Each Report is audited by a team of auditors drawn from members of SEEC together with the Associate Deans of School (Academic Quality Assurance) who sit on SEEC’s subcommittee ASAC. All SEEC members including the Chair, staff from Academic Registry, a representative from Marketing and Communications, a research student and Student Union representatives join an audit team. The inclusion of Associate Deans of School (Academic Quality Assurance) ensures that senior staff in Schools with responsibility for academic quality assurance have both a student experience focus and a shared agenda with the Associate Deans of School (Learning and Teaching).

The process for considering, auditing and evaluating the Report is coordinated by the 'Lead Auditor'. Following independent consideration, the audit group members collaborate and negotiate the definitive report. The audit process is vital in ensuring all senior staff are aware of working towards the strategic aims of the University and, moreover, that the aims themselves are realistic and driven by a shared experience. Engaging a wide group of staff in the audit process shares the understanding of issues and strengthens dissemination of good practice in relation to enhancing the student experience.

The Annual School Student Experience Reports together with the Audit Reports are considered and agreed by SEEC before the Audit Report is forwarded to the relevant Dean of School for further actions and closure of every loop. SEEC identifies University-wide actions and responses to these are secured by the committee.
4 Reorganisation and a new infrastructure

In 2012 a major reorganisation exercise - styled Project Agile - essentially removed the Faculty layer of management in pursuit of greater institutional agility. Specifically, this had two aims and outcomes:

Greater responsibility, accountability and authority was to be held at School level and; Cross-institutional specialist support, advice and expertise would be provided by teams located in central departments.

Retaining the earlier re-focussing from an academic quality enhancement to a student experience perspective with learning and teaching and academic quality assurance being the critical components, all Schools appointed Associate Deans (Learning and Teaching) and Associate Deans (Academic Quality Assurance). Responsibility for the student experience is lodged with the Dean of School, but with strategic and operational leadership provided by the Associate Deans in their respective and complementary roles.

The significance of these new management structures should not be underestimated. While all Faculties had been required to have a senior manager with explicit responsibility for academic quality enhancement (and most Schools also had a post-holder with similar responsibilities) the same was not true for learning and teaching. Here there was considerable inconsistency: some Faculties and Schools had a senior manager with this responsibility covered by a ‘student experience’ or ‘academic quality enhancement’, ‘learning and teaching’ title, others had no such appointee. Needless to say, this presented difficulties in terms of communication with Schools, the operationalizing of strategy and also, on occasion, a degree of disconnectedness from the day-to-day life of the Schools and their students.

4.1 Enhanced leadership structure

The introduction of the new management structures necessitated many new appointments at School level to Associate Dean (Learning and Teaching) roles and, for the most part, confirmation of those currently in matched posts for Associate Dean (Academic Quality Assurance) roles. The LTI was slightly augmented in its staffing to ensure effective capacity for working with the newly established Associate Deans (Learning and Teaching). For academic quality assurance, the central team was significantly expanded with the transfer of faculty-level post-holders to the newly established Centre for Academic Quality Assurance (CAQA). Both the LTI and the CAQA, under the leadership of the Director of Learning and Teaching and the Director of Academic Quality Assurance respectively, are responsible for providing the strategic and operational leadership and support for learning and teaching and academic quality assurance, and for promoting cross-institutional learning and the sharing of best practice.

This picture of the leadership and management structure is completed with the PVC Student Experience who is responsible for the student experience at an institutional level much as a Dean of School is within an academic school. And, as Associate Deans (Learning and Teaching and Academic Quality Assurance) report to the Dean, so the Director of Learning and Teaching and the Director of Academic Quality Assurance report directly to the PVC Student Experience. With the Deans of School reporting to the Deputy Vice-Chancellor and the PVC Student Experience to the Vice Chancellor, there are clear ‘lines of sight’ supporting communication and authentic responsibility and accountability.

The symmetry, consistency and intelligibility of the new leadership and management structures have much to commend them. Internal communications are markedly improved,
especially in respect of learning and teaching and there is clear evidence of greater collaborative thinking and planning. This also extended to work between Associate Deans (Learning and Teaching) and Associate Deans (Academic Quality Assurance) where the modelling in the central teams in terms of co-location and collaborative working has proved invaluable in providing a template for excellent working practices.

A structure with school-level responsibility, accountability and authority and centralized support and expertise is not, however, without its challenges. Without adept and considered management and leadership there is the potential for the emergence of a division between academic Schools and 'the centre', with partnership giving way to friction and reasonable local autonomy being subject to compliance and uniformity. These are likely to be experienced differently in academic quality assurance and learning and teaching contexts. Academic quality assurance is to a significant extent, driven by procedures and processes defined at institutional level. This establishes a shared way of working and a common language for both academic quality assurance appointees, whether in the Schools or the CAQA. This is markedly less true of learning and teaching where understandings are less proscribed and where cultural and pedagogic practices vary considerably. Locating the balance between Schools and the central team demands considerable skills, especially when supporting meaningful conversations that are often rooted in the language of local cultures and practices and when taking forward university-wide initiatives that will require local implementation and, more often than not, local interpretation.

4.2 Partnership working

Through its Student Experience Strategy, Graduate Attributes and Student Charter, the University has made a major commitment to partnership working between students and staff to enhance both the student experience and staff experience. The removal of Faculties (a structure that was only ever intended for internal management reasons) has undoubtedly benefited students as an element of 'noise' has been removed from their perceptions of the organizational structure of the University. Through the components of courses, Schools and University, students now have a clearer sense of how the University 'fits together', their sources of identity and their bases for partnership working.

The sense of 'institutional readiness' that greeted the University's shift to a student experience focus, dovetailing with organisational clarity and consistency has secured a real sense of commitment to the values of partnership working in the interests of the best possible student experience. For example, the LTI and the CAQA introduced the practice of ensuring students were represented on all periodic review and validation panels in line with National activities of the Quality Assurance Agency (QAA, 2013). The Students' Union and the University reinvigorated its student representative system. Each school appointed from among its students a School Student Representative Organisers (SSROs) to work closely with the School's senior managers and the UHSU to support and enhance the activities of the student reps working with staff and students. Evidence suggests that through this the University has improved its performance when assessed against the HEA/NUS Student Engagement Benchmarking Toolkit.

The University has an effective partnership with its Students' Union (UHSU), focused on working together for the benefit of all our students. A Sabbatical Officer has a seat on most high level committee/boards as it is important the student voice gets heard. The Students' Union President meets regularly with the Vice-chancellor to ensure the University understands student issues and the UHSU is alert to the University's response to those issues.

The development of the Student Charter and its annual review is an excellent example of this positive ongoing relationship with the UHSU, as is the UHSU's calm but effective
negotiation with the Head of Estates to reduce a planned student accommodation rent rise for 2013/14.

The above activities demonstrate a commitment to connectedness with students, the importance of which is emphasized by Coates (2005) and Campbell et al. (2007).

Alexander (2007) states; ‘the concept of students as active participants, as stakeholders and partners in the process of learning is fundamental to how we take forward higher education in the 21st century’ (as cited by Campbell et al.2007). The university has embraced this concept by including students in decision making at all levels with the University.

Developing and embedding partnership working between students, the UHSU and the University is more about developing a culture than it is about building organisational structures. This said, it is more than probable that without appropriate structures in place, the attainment of the cultural aspiration would be that much more elusive.

5 Conclusion

This paper has discussed the journey that Academic Quality Assurance and Enhancement has made at the University of Hertfordshire over the past five years. Co-location and greater alignment of the Academic Quality and the Learning and Teaching teams has brought a range of improvements, in terms of policy development, operational effectiveness and partnership working. A new focus on the Student Experience has resulted in enhanced governance arrangements, with more effective strategy development, annual planning and monitoring arrangements and better communication with staff around the Institution. A major institutional reorganisation was an opportunity to build on the above-mentioned developments by embedding new aligned leadership arrangements and develop further our working relationship with our Students’ Union. This combination of strategic, operational and governance developments has strengthened our intuitional platform for Academic Quality Assurance and Enhancement.

References

Campbell, F Beasley, E Eland J and Rumpus, A (2007) Hearing the student voice: promoting and encouraging the effective use of the student voice to enhance professional development in learning, teaching and assessment within higher education, York. The Higher Education Academy


Harvey, L (2005) A history and critique of quality evaluation in the UK, Quality Assurance in Education, vol 13, no 4, pp 263-76

Jackson, N (2003) Principles to Support the Enhancement of Teaching and Student Learning: Implications for staff and educational developers. Surrey. LTSN Generic Centre


Enhancing Quality at Scotland's Newest University

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ABSTRACT: The University of the Highlands and Islands (UHI), Scotland's newest University, consists of 13 academic partners. The Partnership allows UHI to deliver a curriculum that would be impossible for individual Partners to offer. A suitable delivery model had to be developed that would enhance the student learning experience, enable wider access to the curriculum and ensure optimum use of resources.

Over the past two years UHI has engaged in a programme of change - Curriculum for the 21st Century (C21C). This included wide-ranging changes to curriculum structure, module leadership, student support and resource management. The changes to the operational environment took place in parallel with the development of staff and materials by the Educational Development Unit (EDU). This paper will outline the changes to the operational environment (C21C), discuss pedagogical developments and present initial results of the impact of EDU's work.

Introduction

The University of the Highlands and Islands (UHI) is a unique higher education institution providing teaching and research through a distinctive educational partnership of 13 colleges, research institutions and 50 learning centres to some 8,000 students. UHI's Academic Partners (APs) are located throughout the Highlands and Islands, Moray and Perthshire - covering an area roughly the size of Belgium. Students may study at one of the APs, at a learning centre or online. Fully online degrees range from child care to postgraduate programmes in sustainable energy. UHI specialises in using technology to help people in remote areas learn with as well as from each other. UHI is the biggest user of Video Conferencing (VC) in the UK, delivering over 5,000 multi-site VCs annually. Other core technologies are the VLE and ePortfolio. UHI is currently building on areas of best practice to ensure that existing expertise is disseminated throughout the Partnership.

Blended Learning52 programmes and networked delivery are becoming the norm in UHI. An example of a blended learning programme is the BSc Oral Health Sciences, delivered from state-of-the-art training units in Inverness, Dumfries and the Isle of Lewis.

UHI's Quality Assurance processes, which underpin enhancement, ensure there is an integrated and comprehensive approach to developing programme teams in a range of learning approaches and pedagogical skills based on good programme design.

Organisational Change

Part of UHI's mission is to make higher education widely accessible across the region and also to attract students from outwith the region i.e. from the rest of the UK, Europe and overseas. To achieve this, the curriculum had to become more flexible and accessible. It also had to evolve to maintain its relevance to students and employers whilst at the same time remaining cost-effective and of high academic quality.

The Curriculum for the 21st Century (C21C) programme was initiated in 2009 to facilitate the achievement of these goals through review, restructuring and enhancement of the HE portfolio. It also provided the scaffolding needed to progress and maximise the benefits of Learning and Teaching initiatives, for example the work of the Educational Development Unit (EDU). The programme built upon work begun before the current economic crisis. Due to the

52 The UHI definition of blended learning is "a considered approach that selects from a range of traditional face-to-face methods and e-learning technologies to facilitate student engagement, develop independent learners and enhance the learning experience."

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challenges posed by significant reductions in public spending and subsequent threat to post-compulsory education C21C has now taken on greater urgency.

C21C was designed to meet four key objectives:
to enable UHI to deliver as much of its higher education as is possible to all its Academic Partner campuses and (where appropriate) beyond;
to enhance the learning experience by blending learning methods in a manner sympathetic to the content of the curriculum;
to release staff time to provide space for reflection, scholarship and research;
to eliminate duplication and create greater efficiencies in curriculum delivery by offering a maximum number of programmes as pathways sustained by a minimum number of modules and HN units.

There are five activities associated with these objectives within the C21C policy framework:
Revised curriculum architecture.
Allocation of networked modules and units.
Networked student support.
Networked timetabling.
Revised internal funding mechanism.
The framework was developed and owned by a short-life working group consisting of Faculty Deans, the Dean of Learning and Teaching and senior managers from four APs and a range of specialist staff. The successful implementation of this framework also required input from and cooperation of all academic, managerial and support staff. This group was a highly effective policy development vehicle that evolved to form the C21C Programme Board.
As this is a framework for continued development work is on-going. This is clearly defined as a series of discrete but related proposals within the framework. The complexity and size of both the framework and the organisation necessitated a strong and consistent communication and consultation strategy. Each proposal was therefore progressed via a cycle of consultation, implementation and review so that all expertise within our extensive AP network was utilised and all staff were involved. Student centred communications included a poster and web campaign and liaison with UHI Student Association who managed their own Facebook newsfeed and website.

Proposals were reviewed, developed and/or refined by specific consultative bodies such as Programme Leaders, the Learning & Teaching Committee and the UHI Student Focus Group. Papers then progressed through UHI's Committee structure and, if agreement was not reached, the entire University body was invited to comment on the papers. These papers, the associated requests and subsequent outcomes were available to all on the C21C website. This process engaged the collective wisdom of UHI to inform the "how" and "when" for the implementation of the C21C framework. Figure 1 shows the key stages of the proposal development and implementation process.

Figure 17: Proposal development and implementation process
This approach was complemented by communication methods including:
the C21C intranet site - housing all programme documentation
a dedicated email address for questions, comments and suggestions
a series of roadshow events
open VC sessions with staff, students & managers to explore implications
regular contextualised updates and
attendance at special interest group events.
C21C is part of the scaffolding required for the functioning of UHI's blended delivery
approach. During the implementation of C21C other members of Learning and Teaching
(L&T) were simultaneously addressing the pedagogy. This included the development of
minimum standards and the creation and work of EDU.

Pedagogy: quality and standards

During the initial phases of C21C the pedagogic arm of L&T developed UHI's Blended
Learning Standards (BLS) and staff development module.53 The BLS provide a structure and
the essential pedagogic knowledge and skills required to ensure equivalency, enhance the
student experience and guide staff in the move from the pedagogy of face-to-face teaching
to the pedagogy of blended learning. The BLS comprise three documents: BLS checklist,
UHI IT essentials and Accessibility checklist.
The BLS checklist provides guidance on the basic standards of an effective blend that
enhances the student experience and promotes UHI's graduate attributes.54 The focus is on
student-centred learning. Although it is emphasised that each blend is unique (tailored to
specific learning outcomes, student needs, subject matter and situation) making any blend
work is dependent on following a set of pedagogical principles. The document includes
detailed guidance and covers pedagogical principles such as communication expectations,
encouraging active learning, collaboration and assessment and feedback.
The UHI IT essentials document specifies the minimum IT skills required by staff. It contains
hyperlinks to free online tutorials. Completion of the checklist is recorded as CPD.
The Accessibility checklist provides information and guidance on accessibility
requirements relating to all aspects of learning materials.
The BLS underpin all new module development. All new programme proposals now require
a report from one of the authors (AB) prior to progressing further in the approval process.
Staff also have access to an online UHI-developed module, Introduction to online learning.
This is an exemplar of the BLS and promotes active learning. It is interactive, engaging,
media rich and caters for different learning styles. It is contextualised with examples of best
practice (video interviews) from the APs. Activities are constructed to enable staff to reflect
on developing their own blended modules, providing examples of activities that may be used
to help develop students' higher order learning skills. The module's planning section has
been designed so that staff can easily convert theory into practice. The module meets all
legal requirements, demonstrating, for example, how to make learning materials accessible.
It also contains guides and checklists on topics such as video conferencing and learning
contracts. The module's activities have also been designed to help staff in their application
for membership of the HEA. UHI has also developed online training modules on legal issues
such as the Equality Act, copyright and using Web 2.0 technologies.
The module forms the core of a new level 7, 60 credit UHI Blended Learning CPD award.
This consists of three modules: An introduction to blended learning, Planning and Pedagogy
for blended learning and Learning and Teaching using Video Conferencing. The new award
will be piloted by UHI’s Educational Development Unit.

Educational Development Unit: delivery and development

53 See the bibliography for examples of some of the works that informed the development of the BLS and
module.
54 Active, responsive and adaptive, reflective, confident and rigorous.
The Educational Development Unit (EDU) is part of Learning and Teaching at UHI. It was established in April 2011 and is currently funded by the European Social Fund with match funding from the University. EDU contributes to the development of the University’s curriculum in three ways: by enhancing the quality of student experience; by offering geographic equivalence and by ensuring provision is accessible in the broadest sense. It supports the strategic development programme, Curriculum for the 21st Century (C21C) and is designed to underpin the University's blended learning delivery model. Through the Faculty structure, EDU works closely with academic staff at program level across the Partnership to take forward development projects on a phased basis. The work includes developing staff and resources and identifying the most effective ways to deliver learning supported by technology. The outputs from each project will typically include digital learning resources, supporting documentation and blended learning delivery plans. A valuable additional output will often be a piece of action research around an aspect of the project, for example a new process or development tool.

EDU has devised a project management and quality assurance process which is applied to all its work. This includes engagement with internal and external stakeholders such as academic staff, students, employers and external agencies such as sector skills councils. Figure 1 shows the stages of a typical EDU project:

![EDU project stages diagram]

**Figure 1:** The four main workstreams of an EDU project

The following section covers two projects that are currently being embedded in relevant programmes across the University. The evaluation of the project processes and outputs is complete and the wider impact of the project is now being measured. In addition to learning resources the projects have both produced outputs which are transferable and of value to other projects and will enhance learning and teaching in general.

**Problem-based Learning in the Engineering Subject Network at UHI**

The EDU Engineering project had two strands (developing resources for electrical and mechanical engineering) and ran for 12 months. The aim was to enhance the skills and knowledge of students who studied on engineering programs (primarily at SCQF 7 and 8) by the use of high quality, engaging problem based learning objects (PBLOs). The learning objects are designed to be accessed and facilitated online. At the root of the project was the requirement to employ a pedagogical approach which would develop attributes essential to engineers such as independent learning skills, problem-solving skills and collaborative skills. Collaborative project work using a problem based approach was already in use by academic staff at SCQF 9 - 11. It was felt that students articulating to these programmes lacked the critical thinking skills to be able to learn effectively using that approach. The project planned to investigate whether using a problem based learning approach at lower levels would develop the requisite skills. Research will be conducted to test the outcomes of this project. Ensuring that staff have the skills to use the materials is a fundamental aspect of every EDU project. In this case it was important that staff were able to facilitate problem based learning activities at the appropriate level. Project staff ran a series of events and conducted site visits to talk directly to staff about the resources and their use. For example, each PBLO has an accompanying tutor pack which summarises the content, indicates the proposed delivery methodology and contains assessment solution keys. One impact of staff using the PBLOs is that it moves the delivery model from face to face to blended.
The PBLOs are self-contained learning activities that relate to key concepts and may be solo or group tasks. The PBLOs are all structured consistently, using the pedagogic principles, navigation and design templates. To ensure any misapplication of theory is caught early essentially complex problems are delivered in stages with detailed feedback available at all stages. Each PBLO has opportunity for formative assessment and other forms of interaction with the materials for example drag and drop activities. To enhance and make the materials as engaging as possible a variety of technologies were employed, for example manipulation tools for graphics and photographs.

The Project Team used a variety of measures including two stages of peer review and user testing to ensure that the materials were relevant, appropriate, current and of a high quality. They also involved employers at both the design and review stage. In a review survey, Level 7 students were asked what they liked most about the PBLO:

"It was a lot less hassle than having to have work books and changing back and forth between pages. It was also more enjoyable group work, as you were really discussing the different problems that could be present, so you learned from other people explaining why maybe one of your thoughts might not have been right."

"It helped me understand how circuits operate. And it relates to problems you may face at work."

"It was a good challenge that was relevant to what we were learning."

"you have to think for yourself"

Academic staff who have used the materials have reacted with some enthusiasm:

"...dry materials were brought alive through the use of scenarios and interactive quizzes"

"...after seeing how my material looks on the VLE and how it can be used as online material I have become very positive about the potential for using the course."

The EDU project set out to ensure that all the material produced would incorporate UHI’s core graduate attributes. This was relatively easy to achieve in this project as PBLs and problem-solving in general commonly cover all of these aspects. Figure 2 illustrates how the 5 core student attributes link to PBLs.

Figure 2: Incorporation of UHI’s core student attributes in Engineering Electrical PBLs

Two Employer Engagement Events were held during the project lifespan to ensure that developed materials met their needs. The feedback from these events was extremely positive. Employers provided ‘real life’ scenarios on which PBLs could be developed.

In addition to creating over 70 PBL materials the project has devised a transferable model for the development of problem based learning approaches which is applicable in many other curriculum areas across the University.

4.2 Creative and Cultural Industries (CCI) project

The aim of the Creative and Cultural Industries (CCI) project was to create a set of resources which would develop self-employability skills in students studying subjects in CCI
programmes across the University. 'Self-employability' skills in the UHI context are defined as key attributes that help students flourish in a competitive and often isolated market set. The content had to be suitable for students studying a variety of subjects within the CCI, for example fine art students would use the same resources as music students. Resources also had to be relevant to students studying at levels SCQF 7 - 10. Finally it was felt that some students identified themselves as artists or musicians and not as business people. This could impact on their engagement with the project subject matter. The Project Team concluded that it was crucial that the language, pitch and tone of the resources appealed to students with no business background. In keeping with the Blended Learning Standards for all materials, the resources had to have a straightforward, clear, logical and structured approach. They also had to be flexible allowing students to dip in and out and staff to select and drop into their sessions as required.
A set of resources for six topics which relate to self-employability have been developed, including IPR, Networking and Funding bodies. Each set of resources contains:
Generic content suitable for all levels,
Activities levelled for each of the four SCQF levels including formative activities, reflective activities and case studies,
Takeaways (practical resources e.g. pre-populated spread sheets), and useful links
Tutor guides.
External input was sought from self-employed people, those working in small organisations and those supporting the CCRI. They provided input into resource design and also participated in the evaluation and review of resources. Their comments were very positive, typically saying that the resources were excellent and would develop self-employability skills. Academic staff engaged enthusiastically with this project from the outset. Staff offered their services as peer reviewers and some contributed source materials. Despite a review of existing materials and Open Educational Resources (OER), the majority of the resources had to be written from scratch or re-written to ensure the CCRI context. Staff continue to retain their enthusiasm and have provided positive feedback:
"Content was relevant, logical, and the language was appropriate to the target audience."
"There was a real feeling of depth to the materials which provided the reader with a comprehensive overview of key issues."
"Lots of links for interesting articles etc. which weren't necessarily related to the creative industries - this made it clear how important the subject is to wider areas of life."
"Clear and straightforward for individuals to apply to their own line of study."
"...I also particularly liked the way you have used reflective portfolios at different levels against the same core materials."
A group of student representatives have reviewed the materials as part of a wider review of EDU materials. They were very positive and in particular felt that the materials have potential use across a wider range of the University's programmes. This is currently being borne out with requests to use the materials coming to the EDU from staff from a variety of programmes. Early feedback indicates that the materials are having a positive effect on the student experience:
"The content is very engaging."
"Good layout."
"Pitch and tone match the target audience."
"Really like the material and it would be really useful for all students."
The materials have supported the University's core student attributes by being self-directed in nature and by including a range of formative assessment activities. Throughout the materials students are encouraged to develop these attributes through a combination of reflection and practice.
The CRI project has developed a transferable model for ensuring reusable resources which can be used at all SCQF levels by incorporating appropriately levelled activities. Although the model is new the Team feel that the student experience is already being enhanced. They also feel that the approach could be applied to open educational resources offering a simple method of contextualisation and reuse.
Conclusion

The revised curriculum architecture and associated activity has enabled the University to evolve a series of support systems that underpin and enhance UHI's delivery model and associated quality processes. Table 2 summarises the achievements to date.

Table 2: UHI Quality Enhancement

<table>
<thead>
<tr>
<th>Process</th>
<th>Achievement</th>
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<tbody>
<tr>
<td>Organisational Change</td>
<td>Framework for student support</td>
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<td></td>
<td>consistency of provision and application</td>
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<td></td>
<td>all stakeholders aware of their role and available services</td>
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<td></td>
<td>Clearer articulations routes</td>
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<td></td>
<td>potential exposure to broader range of lecturers and students</td>
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<tr>
<td></td>
<td>structured access to options and electives</td>
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<tr>
<td></td>
<td>Increased ability to know what will be available, when and where</td>
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<td></td>
<td>management of networked curriculum is a simpler process</td>
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<td></td>
<td>Ability to model the efficiency of the curriculum</td>
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<td></td>
<td>increase the sustainability of the UHI curriculum</td>
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<td></td>
<td>Internal funding model</td>
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<td></td>
<td>rewards both student support and curriculum delivery at services delivery</td>
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<td>point</td>
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<td></td>
<td>providing resource where needed</td>
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<td></td>
<td>increasing curriculum sustainability</td>
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<td></td>
<td>incentivising networked delivery where appropriate</td>
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<td></td>
<td>Module/Unit Leader role</td>
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<td></td>
<td>academic leadership for all modules</td>
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<td></td>
<td>effective, efficient and consistent modules delivery across UHI network</td>
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<td>input to and responsibility for UHI quality assurance processes</td>
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<td>Pedagogy: quality and standards</td>
<td>Blended Learning Standards</td>
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<td>Blended learning checklist</td>
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<td>UHI IT Essentials</td>
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<td>Accessibility checklist</td>
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<td>Introduction to Blended Learning module</td>
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<td>Educational Development Unit: delivery and development</td>
<td>Tried and tested approach to the development of blended learning</td>
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<td>resources underpinned by</td>
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<td>Blended Learning Standards</td>
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<td>development of core graduate attributes</td>
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<td>robust project management</td>
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<td>quality assurance processes</td>
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<td></td>
<td>Means whereby staff, students and regional employers contribute to</td>
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<td></td>
<td>development of learning resources and delivery models</td>
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<td></td>
<td>Needs-based staff development programme for blended learning,</td>
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<tr>
<td></td>
<td>based on Introduction to Blended Learning Training module.</td>
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</tbody>
</table>

Based on solid pedagogical guidelines and standards and utilising a revised curriculum architecture as well as a clear development-delivery process the University now has a series of support systems and structures in place that underpin, enhance and carry forward UHI's quality assurance processes.

Selected bibliography


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55 This bibliography is an example of some of the works that informed the development of the BLS and module.
Approaches to Self-Evaluation in Scottish Higher Education Institutions

Paddy Maher
Emeritus Professor, University of Highlands and Islands, and QAA Consultant

ABSTRACT: The Institutional Approaches to Self-Evaluation Project (IASE) has been commissioned by QAA Scotland to look at the processes of self-evaluation that Scottish higher education institutions use to monitor and review their learning and teaching, and to identify the features that make them effective. It aims to encourage institutions to reflect on and share experience of their approaches to self-evaluation, and to support the dissemination of illustrative examples. This paper describes the background to the project and explains its methodology of desk research and consultation. It goes on to present preliminary results derived from questioning institutional representatives by survey and interviews about their processes of monitoring and review and their approaches to preparing for ELIR. It concludes by listing factors, gleaned from the literature of evaluation and from the consultation process, that are likely to facilitate effective self-evaluation that may lead to enhancement.

1 Introduction

Higher education institutions in Scotland evaluate their learning and teaching in a variety of formal and informal ways. These self-evaluation processes have been essential components in the development of the Quality Enhancement Framework (QEF) in Scotland since its inception in 2003 and are the subject of a sector-wide project, 'Institutional Approaches to Self-Evaluation' (IASE), commissioned by QAA Scotland for 2012-13. This paper describes the ongoing project and summarises initial results and their significance.

Background

Institutional self-evaluation underpins two elements of the QEF: institution-led quality reviews and Enhancement-led Institutional Review (ELIR), for which each HEI prepares a Reflective Analysis (RA). There are variations in the approaches and terminology adopted by individual institutions but the cycles of activities are fairly consistent across the sector: annual monitoring of teaching provision, periodic quality reviews every five or six years of subject areas and, increasingly, student-support areas, and ELIR every four years. These institution-led processes remain the primary means by which the Scottish Funding Council (SFC) expects institutions to assure and enhance the quality of their provision; they are also a significant focus of attention in the third cycle of ELIR, which started in 2013.

Previous projects and reports on institution-led evaluation

After the first ELIR cycle, two projects reported on good practice in respectively internal subject review (QAA 2009a) and the preparation of RAs for ELIR (QAA 2009b). The former identified the range of approaches used by higher education institutions in their subject reviews and reported considerable consistency across the sector. The other project collected and analysed the views of reviewers and institutional representatives on what constitutes a 'good' RA and how best to produce it. In the same period A Learning from ELIR 2003-07 report (QAA, 2009c) reviewed evolving approaches to institution-led quality review at the subject level and described it as a 'pivotal link between the subject area and institutional strategic planning processes'; it saw ELIR outcomes as confirming that 'institution-led quality review at the subject level is being operated effectively in Scottish higher education institutions as a peer review process with a high degree of externality'.

Guidance to HE institutions on quality

The SFC provides guidance to institutions on quality, much of which concerns arrangements for periodic institution-led quality reviews. The 2012 version (SFC, 2012a) while asserting that 'considerable flexibility' is afforded to institutions, specifies key characteristics of institution-led review including the scope and length of the review cycle; the use of the QAA
Quality Code, the Scottish Credit and Qualifications Framework and benchmarks; student engagement in quality processes; externality; and links between annual monitoring and periodic review. In terms of assurance and enhancement, institution-led review processes are also expected to:

- promote dialogue on areas in which quality might be improved;
- identify good practice for dissemination within the institution and beyond; and
- encourage and support critical reflection on practice.

All three of those areas are particularly pertinent to the IASE project.

The *ELIR Handbook* (QAA, 2012) produced by QAA Scotland includes information and advice on producing a Reflective Analysis, the key document for ELIR.

**The IASE project**

The general structure and ethos of the QEF has remained unchanged since 2003 although specific details of its implementation have evolved in the light of experience and changed expectations. This period of relative stability has allowed institutions to design, develop and modify their own systems of self-evaluation increasingly to embrace the enhancement-led approach to quality. After a 10-year period of such development, the IASE project has been commissioned by QAA to look more deeply at the current state of institutions’ approaches to self-evaluation. The project's two main aims are to:

- Consider and codify the various mechanisms that institutions use to evaluate their learning and teaching practices and identify features that make them effective;
- Encourage institutions to reflect on and share experience of their approaches to self-evaluation, and support the dissemination of illustrative examples.

IASE is updating and extending previous projects by looking at institution-led evaluation across the board in both external and internal review, drawing out examples of effective practice and helping institutions to reflect on and perhaps develop their approaches to review. It takes note of the latest version of the Funding Council's guidance on quality and developments in the review methodology in the third cycle of ELIR. It is designed to stimulate discussion and activity not to give definitive advice or propose ‘best practice’.

**2 Methodology**

**2.1 Scope**

The project encompasses four types of institution-led evaluation of existing learning and teaching provision:
- Annual monitoring;
- Periodic review;
- Occasional internal review of institution-level processes;
- Production of a Reflective Analysis in preparation for four-yearly ELIR.

**2.2 Methods**

The project uses the following methods
- Literature survey;
- Consultation with groups and individuals across the HE sector in Scotland;
- Identification of features of institution-led evaluation practice that appear to be distinctive or innovative and factors that appear to facilitate effectiveness;
- Dissemination of the project's findings.

**Literature survey**

This involved surveying the very extensive literature of evaluation and quality systems in HE from that specific to the QEF, such as RAs, ELIR reports, institutional quality manuals, and
commissioned evaluations, to the wider educational literature. The most detailed documentation is produced by the institutions themselves and is summarised for review in their RAs. Permission to access RAs from the second cycle of ELIR (2009 -12) was kindly provided by the institutions. The RAs and the associated ELIR reports formed the main information base for the consultation phase of the project. SFC-commissioned evaluations of the QEF include a series by the Centre for the Study of Education and Training of Lancaster University up to 2010 - of which the most recent (SFC 2010) covers aspects of ELIR - and a review of enhancement in the university sector from 2003 to 2012 by QAA Scotland (SFC, 2012b). Access to monitoring and evaluation feedback from ELIR team members and institutional representatives was provided by QAA Scotland.

Consultation
There has been extensive consultation throughout the project with
groups and agencies including the Scottish Higher Education Enhancement Committee
(SHEEC), Universities Scotland Teaching Quality Forum (TQF), student participation in
quality scotland (sparqs) and QAA Scotland;
representatives of Scottish HE institutions and ELIR reviewers.

HE staff and students, chosen for their experience of monitoring, review and ELIR, were the
main sources of the project's evidence base. They included senior managers and
administrators with institutional quality responsibilities; academic staff who lead faculties,
departments or programmes56, quality managers, staff and student members of internal
review panels and ELIR teams, and educational developers. The consultation included
presentations, group work, semi-structured interviews and a survey questionnaire.
Presentations to SHEEC and TQF were followed by consultations, which yielded useful
guidance on the conduct of the project. Group work at an ELIR reviewers’ CPD event, which
included a number of student reviewers, informed the updating of Good Practice in
Reflective Analysis. There were structured interviews with members of eight Scottish HEIs, a
sample chosen to be roughly representative of the sector in terms of different sizes and
types of institutions and encompassing different types of review processes. After the TQF
presentation a SurveyMonkey questionnaire link was circulated to Forum members. Officers
of sparqs gave helpful information and advice about student engagement in quality
processes.

Preparation for each interview meeting included reading the institution’s RA, ELIR report and
publicly available information on its website such as quality procedures. The interviews and
survey were based on a series of questions about
changes in internal processes and structures since the last ELIR;
the effectiveness and development needs of monitoring and review processes;
the links between monitoring and review;
preparation for ELIR;
staff and student engagement in quality processes;
selection and preparation of review team members;
follow-up to monitoring and review;
the relationship between quality processes and enhancement; and
expectations and suggestions for outcomes of the IASE project.

A draft survey was amended in the light of comments from TQF members, who were
subsequently sent the SurveyMonkey link and asked to complete the survey themselves
and/or distribute it to a sample of staff and student representatives with knowledge and
experience of institution-led evaluation processes.

56 The terms which are used to describe academic units, units of study, quality processes and staff categories
vary across the sector so the generic terms used here may need to be translated for local usage.
Summarising approaches to institution-led evaluation practice and identification of factors facilitating effectiveness
The survey answers were collated, analysed and summarised; interviews were written up. Examples of approaches that appeared to be distinctive and/or innovative were derived from the survey and interview records. A set of factors that are likely to facilitate effectiveness are being derived from the same sources and from the literature survey.

Dissemination of the project's findings
The findings will be disseminated by presentations, conference papers, an updating commentary on Good Practice in Reflective Analysis, a report and a workshop.

3 Findings

3.1 Literature survey
Publications on quality assurance and evaluation in higher education have proliferated in recent years but relatively little attention has been given to the effects and effectiveness of institutions’ internal self-evaluation processes. In reviewing fifteen years of the journal, Quality in Higher Education, Harvey and Williams (2010) attributed the small number of papers on internal quality assurance to the dominance in the quality debate of the activities of external agencies. Others, such as Newton (2007) have drawn attention to a general lack of research into quality processes in the HE sector.

Given the time devoted to institution-led evaluation, its supposedly pivotal role in enhancement and the extent to which it impinges on academic life, it is hard to explain why it is not more fully researched. Perhaps this reflects the attitudes of academic staff to quality processes that many originally saw as imposed by external agencies and supported by an increasingly managerial approach within institutions. The QEF is enhancement-led with a consultative and participatory ethos and has been exempted from the charge of increasing misalignment of quality culture and academic culture applied to other quality systems (Harvey 2010) but a dislike and distrust of previous quality regimes has left its legacy. According to Laughton (2003) academics need to be convinced of the values and methodologies of quality review to ensure their active engagement and increase the chances of enhancement ensuing.

More recently, from an institution within the QEF, Harrison and Bruce (2011) have described the strengthening of trust among teaching staff and other stakeholders through institution-led review. Bamber (2011), also from a Scottish HEI, has pointed out the importance in building trust among staff of recognising diversity of social practices within institutions: ‘... quality and evaluative approaches which ignore the social practices of those involved risk alienating staff and introducing unsustainable initiatives. On the other hand, evaluative practices which work with social realities can offer powerful support for change, and can lead to change which exceeds what was originally planned’. Åkesson (2012), Vice-Chancellor of Uppsala University, adds another perspective to the ‘trust’ issue: ‘Staff and students are our university’s biggest asset, and a deep trust in their willingness to be professional and committed should be the corner stone of the quality system.’ But she goes further to argue for an approach to quality based on scholarship and research: ‘Monitoring of the quality is needed, but it should be framed as a scholarly approach to professional learning and development, not as a control system...Internal evaluations should again, be framed as institutional research, i.e. efforts to understand our university and learn to develop it. Internal evaluations have to be carefully designed and not too many’. Her calls to put academic values at the centre of the quality system and produce no more results from internal evaluations than can be acted upon resonate with responses from the consultations.
3.2 Consultations

The survey was completed by 30 people from 13 different institutions while 26 people from eight institutions and sparqs took part in interviews or focus groups: allowing for overlaps, that gave a total of 53 people. Most were from a wide range of institutional academic and administrative roles and all had experience of review activities. One challenging feature was underrepresentation of students: other ways are being sought to get the views of student members of internal review teams to supplement those previously obtained from students with ELIR experience.

The first and strong impression from the surveys and interviews is of a dynamic sector with what one respondent described as a 'continual improvement process' Most institutions reported that they were at some point in the process of reviewing and developing one or more of their quality processes while three had recently undertaken major projects of curriculum reform entailing lengthy and detailed processes of reflection and evaluation.

The second general conclusion is one already reached by other evaluations and backed by the evidence of ELIR reports, that monitoring and review are generally rigorous and meeting SFC guidelines. While systems are still grounded in quality assurance the balance of focus continues to shift towards enhancement. Periodic reviews encompass all academic provision and, increasingly, student-facing support services within a five or six-year cycle; review panels include student reviewers and external members with academic or other professional expertise; linkage with annual monitoring is strengthening; and institutions have generally well-defined and developing procedures for following up the conclusions of review whether requirements and recommendations for change or identification and dissemination of good practice.

The extent to which institution-led approaches are effective - that is, successful in producing their desired results - is more difficult to assess in a climate of continual improvement when processes are being regularly renewed or revised. Judgement of the effectiveness of institution-led evaluation is reached during ELIR: the general positivity of ELIR reports suggests that institutions are adopting effective approaches. Institutions have mechanisms for reviewing and revising quality processes that should identify and change those that are not producing the desired results: i.e., they monitor their own effectiveness. In some there is a specific point in time for taking stock of such monitoring: for example, the four-yearly Holistic Review, which one HEI undertakes encompassing all of its quality processes, structures, governance and culture, and external influences on them. In others, regular meetings of quality committees and oversight by senior managers and administrators provide evidence of effectiveness and prompts for review of particular procedures. The consultation suggests that while ELIR may note particular areas requiring development, the impetus for change is more likely to come from institutions’ own reflections on the effectiveness of their quality practices and then be included in their next RA.

**Major transformational projects**

That institutions now have in place or can arrange to put in place the ability to evaluate their own practices and carry out far-reaching reviews is exemplified by those institutions which have undertaken major transformational projects affecting their curricula and/or academic structures. These were long-term projects, which variously required lengthy periods of consultation, much evidence-gathering, extensive external input and persuasive skills. Not all were uniformly welcomed internally, but are now generally seen to be beneficial: one was described by a respondent as ‘getting a hugely positive response’. In each case they appear to have had an energising effect, identified by another respondent as making further enhancement more likely to be achieved and have been evaluated both internally and by their use as case studies in ELIR.

**Developing annual monitoring: a little more conversation?**

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The QAA Quality Code (QAA 2011) states that: ‘Institutions should consider the appropriate balance between routine monitoring and periodic review of programmes so that there is a continuous cycle’. A number of institutions have developed monitoring procedures, which, while still ‘routine’ in being regular annual activities, have assumed greater significance in the totality of quality procedures, with more emphasis on discussion and less on the passing of paper back and forth. In such examples, a reflective annual monitoring report - variously formulated and named - forms the basis for a face-to-face discussion between representatives of the subject team and members of a monitoring group. In one institution, the process has been moved forward to June to be closer to examination panel discussions of programme-related matters, and the required report has been shortened to encourage more focused reflection on what’s working well, what’s new and innovative, and what are potential problems. In institutions that have adopted this approach the composition and approaches of the monitoring group may vary: some include external members; in one the monitoring group identifies a few major themes for discussion and clarifies more minor issues by email, and so on. However, they all share the aims of making the process more reflective and productive and strengthening links with periodic review where the accumulated annual reports can form most of the documentary evidence with a shorter reflective analysis being the only major new paperwork required. Another advantage of the discussion approach is that feedback to the subject team is both certain and relatively rapid.

Challenges were identified where self-evaluation documents were required for annual monitoring: e.g., variability between teams in the levels of reflection and analysis, and perceptions of additional annual workload. The former, which can also apply, of course, to periodic review documents, may sometimes be a defensive reaction instilled by previous experience of assurance regimes, but can also be unfamiliarity with the techniques of reflection and evaluation, which can be developed (see below). Additional workload is a constant problem - a lack of time for quality processes when set against other priorities was quoted by nearly all respondents as the major factor inhibiting academic staff engagement. However, some respondents reported that developed versions of annual monitoring, which met initial resistance, were gaining ground: one subject team had asked for longer meetings.

Other institutions are reassessing their approaches to annual monitoring. In one, course monitoring is being recast at school level to provide greater local ownership and more explicit student input while programme monitoring is being added at institutional level to provide a firmer assurance base so that periodic review can have a stronger enhancement focus. In another, an online instrument is being developed to allow more dynamic real-time reporting throughout the year and allow easier sharing of information about good practice.

Another trend is institutions’ improvements in the quality and accessibility of the data sets on which subject teams rely for their evidence base, previously an area for action in some ELIR reports. There are positive developments in student feedback both to internal prompts for course evaluation and to surveys such as the National Student Survey (NSS). Several institutions now use online course surveys allowing rapid dissemination and data collection and potentially faster analysis and feedback to students. Lower response rates than with paper surveys have sometimes resuted although it is claimed that the quality of responses may be higher. Against a generally improving picture of ‘closing the loop’, some ELIR reports noted students being unclear about the effects of their feedback. Several respondents stressed the value of their ‘You Said, We Did’ communications to students. One institution includes extensive evaluation and follow-up action on external student surveys, in particular the NSS. Key themes are drawn out, analysed, and inform the management of performance indicators, while at school level the 'you said, we did' approach is embedded and staff-student liaison committees are taking a more proactive approach to feedback.

Periodic review

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By developing annual monitoring so that accumulated yearly reports provide the major quality assurance base for periodic reviews, some institutions are trying to reduce paperwork and allow staff to concentrate on evaluation and enhancement. One has developed a ‘Look’ model for school-based evaluation: looking back to key messages from past quality assurance; looking inwards to the working of the school and its courses; looking outwards to external reference points and looking forward to the future context for students, graduates and the school. A faculty quality officer, a role which is highly valued by academic colleagues, prepares the ‘Look Back’ report. With annual monitoring as the assurance foundation, external reviewers can contribute more to the enhancement discussions of reviews: this is welcomed by subject teams previously frustrated that they were not able to get full value from external experts.

Some institutions make particular efforts to engage staff by demonstrating the academic value of review. One invites subject teams (and students) to contribute their own items to the review agenda and arranges an early, informal meeting between the subject team and internal panel members to clear some of the descriptive ground and facilitate discussion. There is staff development in reflective analysis and educational developers support dissemination of good practice: feedback from staff has been positive. Staff can also be supported by linking internal review and professional body accreditations. Combining review and accreditation events may not be possible, but preparatory work for the internal process may be a helpful precursor for accreditation: there were examples of this improving accreditation paperwork and eliciting positive comments from the professional body. Serving as a member of a review panel was also seen as professional development as well as preparation for one’s own subject area’s review and a possible source of new ideas.

**Student engagement**

When the survey asked about positive and effective features of quality processes, many answers were about student engagement. They included students’ enthusiastic involvement in reviews; faster student course feedback and institutional responses to it; more effective staff-student liaison committees; student-led teaching awards; the positive experience of paid student officers in subject areas; the valued role of sparqs in training student representatives; trained student reviewers commenting on RA drafts, and postgraduate student reviewers being recruited from those training to teach undergraduates. Student engagement also presents challenges. These included low survey response rates; variation in SSLC effectiveness; low recruitment of representatives; and how to engage students from harder-to-reach categories such as distance learners. Some institutions want to learn from others’ approaches to student engagement: this was mooted as a possible project outcome.

**Follow-up to review**

Institutions have well-defined processes for following up requirements or recommendations in review reports such as monitoring by a senior committee, subject area action plans and follow-up progress reports at specific times and in the subsequent year’s annual monitoring. There is greater diversity in disseminating ‘good practice’ identified in reviews - a continuing challenge. Identifying practice effective in one context gives no guarantee of transferability to another; and dissemination does not ensure embedding. The survey gave examples of positive approaches often involving educational developers: these included quality enhancement conferences, good practice events, subject development meetings, dedicated websites and so on. In one institution the holder of a new post is expected to proactively identify good practice and support its embedding in strategies, policies and procedures.

**Do monitoring and review lead to enhancement?**

When asked if monitoring and review led to enhancement of students' learning experiences a high proportion of respondents gave positive answers and examples from course, school and university levels of beneficial changes. A few expressed caveats, one stating that while enhancement is likely, the expected improvement of student experience is not fully tracked, another noting that improvement is incremental rather than step-change. This area may be
better informed as SHEEC's work on 'indicators of enhancement' develops, and given the centrality of the question, would certainly merit further research.

**Good Practice in Reflective Analysis**

This was the report of a 2008 project to identify, collate and disseminate elements of good practice in preparation of an RA. ELIR reviewers and staff and students responsible for producing RAs were asked for their views on the features of a 'good' RA, and the elements in ELIR preparation that help to produce one. Answers to these questions supplemented by analysis of RAs and ELIR reports produced the guidance in the report, which was well-received in Scotland and has generated interest in other parts of the UK and abroad.

Given the expertise of the 2008 survey group, the conclusions of the report were expected to retain currency, but the IASE consultations allowed the guidance to be revisited and updated. Encouragingly, little has changed in the 2013 view according to which the characteristics of a good RA are that it:
- addresses the primary audience, the ELIR team, and is fully accessible to external readers;
- is reflective, analytical and evidence-based;
- summarises a process of continuous reflection with a forward-looking dimension;
- is open, honest (transparent), and upfront about areas for further development;
- balances description and analysis, and assurance and enhancement;
- is not too long - a readable, consistent narrative but reflecting institutional diversity;
- uses case studies illustrating strategic processes not just examples of good practice.

**Preparation for ELIR**

Several survey and interview participants referred to the positive opportunity that an upcoming ELIR presented for prior institution-level evaluation. For example: 'The ELIR provided an opportunity to step back and reflect on the many activities and processes that underpin quality enhancement thereby ensuring a holistic review of our approach'. Another said'...the process of thinking about what you do that's good and thinking honestly about where things might be improved, has been helpful overall'. Another welcomed ELIR as providing 'a framework (and impetus) for us to take a look, at the institutional level, at our enhancement plans and assurance processes'. Such positive views are more prevalent in 2013 than they were in 2008 but are tempered by the distinctions made between the usefulness of the process of ELIR preparation and the subsequent ELIR visits felt by a few to be insufficiently enhancement-focused. Some respondents also commented on the time and effort required to prepare for a four-yearly ELIR particularly in smaller institutions. While some felt a four year cycle was too short, others thought it was about right for timing a strategic overview. Several institutions were already well into their preparations for ELIR 3.

In 2008 the average length of a sample of RAs from the first ELIR cycle was around 30,000 words, though variance was high; in a similar sample from ELIR 2 that figure had just about doubled. This runs counter to both the advice in *Good Practice in Reflective Analysis* and the desire of some HEIs to streamline paperwork. However, some interviewees were not surprised at the growing length of RAs, citing the need to explain at greater length the ever-growing complexity of their institutional contexts to those reviewers from outwith Scottish HE, and the importance attached to securing a positive ELIR outcome working against brevity.

Institutions adopt a range of approaches to ELIR preparations but there is usually a representative Steering Group and one or a few authors gathering evidence and wider opinion from working or focus groups of staff and students. Several respondents wanted greater sharing of preparation experiences between institutions; some had already consulted colleagues in similar types of institutions or at the same point in the ELIR cycle; seeing examples of RAs - some are online - was helpful. The most useful experience was membership of an ELIR team to get an understanding of what a reviewer looks for in an RA.
4 Conclusions

The examples of developing practice described above are still within the evolving but stable framework of the QEF. The reassurance of knowing, at least in general terms, what external requirements are going to be for a reasonable period of time and that they will continue to be enhancement-led allows institutions the latitude to develop processes better suited to their own contexts and requirements. This echoes the acknowledgement in the 2003-12 review of enhancement in the Scottish sector (SFC, 2012) that a continuing commitment to the long-term is ‘particularly beneficial to bringing about effective culture change’

When considering institutional practices, an aim of the IASE project is to identify features that make them effective. As the project has progressed the author has drawn up tentative, and often changing, lists of factors, gleaned from the literature and consultations, which appear to facilitate effective self-evaluation that may lead to enhancement. This is the current list - a ‘top ten’ but in no particular order - each qualifying the following statement: Institution-led monitoring and review are more likely to be effective when:

- Able to answer the ‘so what?’ question for staff and students
- Kept simple: ‘What’s working? What’s not? What needs to Change?’
- Flexible enough to recognise differences between subjects in culture and practice
- Framed as a scholarly approach to professional learning and development
- Engaging a wide spectrum of students as reviewers and providers of evidence, and fully utilising sparqs expertise and support
- Balancing assurance and enhancement: giving confidence to and developing trust of external and internal stakeholders
- Based on teamwork and well supported by senior managers and educational developers
- Leading to enhancement plans, SMART targets, and the effective closing of loops
- Monitoring, review and ELIR preparation are linked, and regularly reviewed
- Involving open discussions between reviewers and reviewed

Of course, ticking off all these factors is still no guarantee that institution-led evaluation will lead to enhancement but the positivity of respondents suggests that it stands a good chance.

The IASE project is nearing its end but in the meantime will continue to analyse the results of consultation, revise the above list, and disseminate and discuss the findings as widely as possible.

References


Harvey, L and Williams, J (2010) Fifteen Years of Quality in Higher Education (Part Two), Quality in Higher Education, 16, pp 81-113


QAA (2009a) Good practice in internal subject review, Universities Scotland Teaching Quality Forum Project, QAA, Gloucester

QAA (2009b) Good practice in Reflective Analysis when preparing for Enhancement-led institutional review, Universities Scotland Teaching Quality Forum Project, QAA, Gloucester

QAA (2009c) Learning from ELIR 2003-07 Emerging approaches to institution-led quality review at the subject level: combining assurance with enhancement, QAA, Gloucester

QAA (2011) UK Quality Code for Higher Education Part B: Assuring and enhancing academic quality Chapter B8: Programme monitoring and review, QAA, Gloucester


SFC (2010) Thematic summary of the second annual report of the evaluation of the quality enhancement framework, October 2010, Centre for the Study of Education and Training, Department of Educational Research, Lancaster University


The use and usability of enhancement indicators in Scotland: emerging analysis

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Abstract
The focus for this paper is the evaluative research commissioned by the Scottish Higher Education Enhancement Committee of the way in which Indicators of Enhancement have been used in the Scottish HE sector. The indicators were originally developed in 2008 and this project aims to revisit the Indicators of Enhancement (EIs) to ensure they are as useful as possible to individual institutions for internal reflection about enhancement and useful to SHEEC, as a way of facilitating sector-wide discussions about enhancement. Evaluative evidence collected during the early part of 2013 is highlighted which suggests a range of uses and usability from a social practice perspective. The observations are based on semi structured interviews and focus groups within the HE sector in Scotland during the early part of 2013.

Introduction
The Scottish Higher Education Enhancement Committee has recognised the need to revisit the Indicators of Enhancement to ensure they are as useful as possible to individual institutions for internal reflection about enhancement and useful to SHEEC, as a way of facilitating sector-wide discussions about enhancement. There is also increasing awareness of the need to demonstrate impact of enhancement activities and the indicators may provide a useful tool for institutions and the sector.

The aims of the work are to:
- assess the current level and type of use being made of the Indicators across the sector and a general assessment of whether they remain fit for purpose
- assess the coherence of the Indicators as a set and how well they are understood
- develop a refreshed set of Indicators of Enhancement that are useful to individual institutions for internal reflection about enhancement

The focus for this paper is the evaluative research commissioned by the Scottish Higher Education Enhancement Committee of the way in which indicators of enhancement have been used in the Scottish HE sector. The indicators were originally developed in 2008 and this project aims to revisit the Indicators of Enhancement (EIs) to ensure they are as useful as possible to individual institutions for internal reflection about enhancement and useful to SHEEC, as a way of facilitating sector-wide discussions about enhancement. The paper will outline some general issues associated with use and usability and will offer some preliminary observations about the findings of this short project during the project lifetime of four months between January and May 2013.

The stance taken in the project is that use and usability is essentially about ‘what people do’ i.e. the practices which have grown up around the use and usability, in this case, of the indicators of enhancement. This paper contributes to the discussion of evaluation use, in particular the use of EIs. It argues for a social practice approach (Saunders 2012) to the


analysis of the use of evaluation tools (in this case indicators) which enables a discerning and fine grained understanding of how such tools might be used by real people in real time. It suggests a distinction between two dimensions of the way such tools might be used. It offers an interpretation of ‘use’ which focuses on the context (including other evaluative practices e.g. Outcome Agreements, the NSS) and the capacity of the organisational setting in which indicators are used on the one hand and ‘usability’ which emphasises the extent to which the design of the indicators themselves militate against or encourages their use in the broadest sense. The two dimensions are distinct yet closely inter-related.

The paper includes an indication of the evaluative evidence collected during the early part of 2013 which highlight the dimensions of use and usability from a social practice perspective. The observations are based on semi structured interviews and focus groups with approximately 25-30 key informants (individuals dropped in and out of on-line focus groups) within the HE sector in Scotland during the early part of 2013.

The QEF approach

The Quality Enhancement Framework (QEF) policy has had some unique characteristics that were rooted in an emerging HE sector identity, intentionally nurtured and encouraged as part of a devolved educational and social policy culture. From its inception in 2003, the Quality Enhancement Framework (QEF), coordinated by the Scottish Funding Council with the participation of the Scottish Universities themselves, attempted an integrated approach in which ‘enhancement’ rather than ‘assurance’ was emphasised in its approach to the quality of university teaching and learning. This approach was welcomed by the sector as an improvement on the previous, assurance-based engagement between the Scottish universities and their national sponsors.

The dimensions of the policy or the policy mechanisms have been:

- ELIR: Enhancement Led Institutional Review (external estimations of institutional quality processes);
- Internal review processes (an institutionally-based, self-diagnostic process);
- Student involvement (a range of participatory activities in which students are helped to participate in developmental processes);
- Enhancement themes (activities involving enrichment, alternatives, new frameworks in targeted areas, e.g. Employability, Flexible Learning, the Student Experience);
- New approaches to public information (engaging and using communicative devices that inform external audiences of University achievements).

From the start of the QEF there was awareness that disgruntlement with quality assurance processes, which was quite common in the UK (Saunders et al, 2006: 5), and the wish to do something different, was no guarantee that a feasible and better approach could be created. However, in Scotland there was the advantage that their self-governing system comprised just twenty higher education institutions. This made it possible to assemble a distinctively Scottish alternative to current quality assurance practices. Since control of higher education was located with the Scottish Assembly (now the Scottish Government) and since there was considerable interest amongst officials and agencies in the creation of a distinctively Scottish approach to quality, the scene was set for new thinking. Therefore, the QEF rests on a cultural and sectoral analysis that attempts to set itself apart from an overly managerial approach to quality management and development and build on a strong sense of appropriateness, pragmatism and collegiality.

Most importantly, unlike many policies or programmes, the QEF in Scotland has had a built-in implementation reality that set it apart from its international neighbours. The evaluations of policy enactment (see Saunders et al 2009) suggested that what emerged was ‘home-grown’ but not ‘home-spun’. Scottish, certainly, but based on the pooling of expertise and knowledge of literatures on teaching, learning, change and quality from a wide range of sources, all shot through with a commitment to enhancing students’ experiences as learners. In other words, QEF brought to the fore the simple and powerful idea that the purpose of

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60 See [http://www.gaa.ac.uk/SCOTLAND/ABOUTUS/Pages/Quality-enhancement-framework-in-Scotland.aspx](http://www.gaa.ac.uk/SCOTLAND/ABOUTUS/Pages/Quality-enhancement-framework-in-Scotland.aspx)
quality systems in higher education is to improve student experiences and, consequently, their learning. While drawing on ideas and influences from far and wide, there were strong local influences that gave it a distinctive ‘Scottishness’. This means that in any turf war over legitimacy or credibility, the promoters of policy could (and have) drawn attention to the fact that the main architects were from the sector itself. This is not to say that there is such a thing as a homogeneous higher education ‘sector’ in Scotland; there are many and - as in any national university sector - rather contrasting experiences and priorities, but the aspirations and interests in the approach were, in an important sense, known and shared. This enabled a familiarity, an ownership and a legitimation that other forms of implementation strategy might find hard to emulate. We term this a theory of ‘consensual development’.

Nature of Enhancement Indicators
It is this context that the EIs were developed. In the report to the then Scottish Funding Council (Saunders and Knight 2005, 61), the following observations were made in providing guidance for the intended use of indicators of enhancement. The data then showed that the indicators were intended as a ‘tool’ for the institutions to consider for the design of their own approach to evaluating and reflecting on progress and that a wide range of indicative data might be helpful in addressing the indicators. It was recommended that it was for institutions to decide when it might be appropriate to collect evidence of progress for different parts of the QEF framework. Institutions might want to emphasise some indicators rather than others and to add to the list on the basis of institutional relevance or character. In using the indicators, institutions might consider institutional developmental as well as accountability as a purpose. Institutions might consider an ‘inclusive’ approach to both collecting and using different kinds of evidence. Institutions have the scope to decide on the precise operational definitions of these aspirational and generic indicators.

The framework that was subsequently developed 62 has broadly continued the thrust of these sentiments. There are 12 discursive indicators written in narrative style, focusing on issues associated with learner centeredness, reflective cultures, enhancing the learner experience, connections with themes and graduate attributes. The introduction to the indicators forming the object of this evaluation outlines their purpose as acting as

"a vehicle for evaluating progress in the enhancement of the student learning experience. The act of evaluation is characterised as a series of informed discussions between internal colleagues and, where appropriate, with external peers which contribute to an understanding of both the current position and future aspirations in relation to the student learning experience, and the nature of the journey from one to the other” (SHEEC 2008)

The introduction goes on to state that

"the indicators are deliberately brief and few in number. They have been designed to recognise the diversity of institutions in Scotland and the very different populations of students which they serve, national and international, full-time and part-time, home-based and at a distance. The indicators are also designed to be applicable in relatively formal contexts within quality enhancement structures, but also to be useful in informal settings as an aid to individual and group reflection. They are intended for all staff who contribute to the learning experience” (SHEEC 2008)

We have identified three types of indicator in general use within public policy areas which can be broadly defined in terms of different modes (Saunders et al, 2011). Mode 1:


Indicators interpreted as areas, activities, domains or phenomena on which evidence will be collected. This is using the notion of indicator as a focus on which evidence might be collected and is low on specification or prescription. An example from the EI indicators (number 2) might be **Student engagement in learning**: (Being active in supporting students to become purposeful partners in their learning and providing them with appropriate opportunities for effective engagement). This area is identified in advance in an evaluation plan as an area on which data will be gathered. Mode 2: Indicators interpreted as the evidence itself. An example from the EI indicators (number 8) might be the evidence retrospectively collected on the engagement with **Enhancement themes**: (Establishing a creative, reflective and productive relationship with the QEF Enhancement Themes based on an engagement which is the most appropriate for an institution and for each level within an institution). Mode 3: Indicators as a pre-defined or prescribed state to be achieved or obtained. In this way indicators constitute desired outcomes. An example form the EI indicators (number 3) might be **Student engagement in processes**: Ensuring that all policy, strategy and practice relating to the student learning experience is informed by a continuous engagement and dialogue - both formal and informal - with students.

We can see that the EI indicators can be interpreted in each of the three modes. However, the way in which the EIs are phrased suggests an openness which broadly defines practice which might be aligned to an enhancement approach but which does not specify the nature of the observed practices which might embody an indicator, the kind of evidence required or the prescription of precise 'targets'. It is the configuration of these characteristics which is pertinent to this discussion and will be addressed in the section on the way EIs were or not used.

**Issues of use and usability**

Drawing on the work of Fleischer and Christie (2009) we note the following typology of potential uses of Indicators in their important reviews of studies of 'use' in the US evaluation literature. In our context of the uses of an evaluative device like enhancement indicators we can see that the conceptual framework they offer does have resonance. Building on their 'overview of overviews' it is possible to identify the following typology of use:

**Typologies of use**

- **Instrumental**: when decision makers use PIs to modify the object of the evaluation in some way.
- **Conceptual**: when the PIs help program or decision makers understand the program or policy in a new way.
- **Enlightenment**: when the use of PIs add knowledge to the processes and thus may be used by anyone, not just those involved in the institution or the evaluation of the policy.
- **Process use**: cognitive, behavioural, program and organizational changes result from using PIs and engagement in the process of review.
- **Persuasive or symbolic (justificatory)**: uses of PIs are associated with accountability or when an evaluator is hired to evaluate a program to legitimize a decision that has already been made prior to the commissioning of the evaluation.

The data suggests a range of potential practices for the EIs (both where used and in principle) which broadly echo the categories found in the literature (exemplified in Fleischer and Christie). So, they are potentially used:

- As a checklist,
- As an inclusive agenda,
- As mechanism for discussion and debate,
- As a guide for 'what ought' to be visible/day to day practice,
- As a reflective tool for ELIR,
- As a way of showing progress,
- As a diagnostic tool,
As a framework for describing the QEF,
As a framework for providing an external audience with a profile.
These categories might be further synthesised to form the following groups
A vehicle for reflection, debate and discussion
As a guide for categories of development (elements of the enhancement system)
Legitimation, checking and control
Description and depiction
Use and usability refers to the interaction between the organisational environment in which,
Elis are being used and their design and tone. Both these features interact to determine the
extent to which an evaluation device like Els can create effects i.e. change practices. The
way Els are used depends on the capacity of the potential users to respond to the messages
they might contain and can see positive use scenarios. In social practice terms, it is the
degree to which the Els can provide knowledge resources for new practices or to depict
current practice in order to assess 'alignment' with policy. Els connect to the capacity of an
HE institution to respond. This requires the following dimensions:
The Els connect effectively with internal and external systemic processes. This means the
messages are able to feed into structures that are able to identify and act on implications.
Organisations that are lightly bureaucratised, sometimes called adaptive systems are better
placed to respond to 'tricky' or awkward Els because their practices are more fluid, less
mechanistic and have a 'history' of responding to new knowledge.
Els that are strongly connected to power structures and processes are more likely to be
used because there is a strong systemic incentive to do so (HE institutions will have clear
benefits if they use the Els effectively)
Usability practice on the other hand refers to the design of the vehicle of the message to
maximise engagement with the Els. Essentially, this is a matter of the design and tone of the
Els, i.e. the way they were written and presented. The data suggests a number of
observations on this issue. The Els were perceived as
dated in tone,
repetitive with a need to be grouped and articulated in a simpler form,
Woolly and vague too generic
Lack of clarity on whether they were prescriptions or guides?
Did not contain the evidential base required for use (could be quantitative)
Managerial
Simple yet still jargonistic
Unclear on the audience: Who for? Not recognised by front-line, should they be?
Suitably open and discursive
Indicative quotes on usability from respondents include:
"The language that's used in these is rather high level and would be seen as very
managerial by of my Deans I suspect and although they're fine for informing Quality
Assurance... and fine as a framework in which to look at programme review and other
reviews, but as a tool, I suspect they would not be seen as particularly helpful."
"They are very open to be, they have to be all things to all people. The
argument I'd have with them is they are too managerial and the way language is used in it
is convenient but not helpful. I mean "promoting a learner-centred and cohesive approach
which is aligned with policy and practice"... Most of that sentence is just a posh way of
saying "do it efficiently and align what you do and be clear about why you're doing it"
The data suggested a widespread sense of the Els 'not being quite fit for purpose' but also
contained rather contradictory messages. Also, as we note above, the purpose for which
they might be fit seemed illusive and unclear with little consensus. Redesigning the Els is
presented with a problem. It might be much more important to clarify the emphasis in use
before usability should be considered.

Use scenarios
As we note above, the variations of use were considerable. This section will continue to
outline some of the findings in order to give a flavour of the key issues we mention above by
the insertion of quotes from transcripts. The overall uncertainty (not at an individual level but in terms of a consistent profile of experience across the group) was striking. There were relatively few examples of specific and targeted use. Below are some examples from the data.

**Examples of use**
"We've started going into preparations for our ELIR... and in doing that we've actually started using the indicators"
"We've just gone through this way of everybody having a bit of... reflective writing around aspects of each of the codes and then using the indicators as a reference point"
"I don't know if it's the indicators that are useful; if anything what it's done is it's prompted debate. So it's prompted this dialogue amongst colleagues and with students"
"So I think they [staff] pragmatically see the value of the indicators as a really good way of going "oh right" ... of how they tick the box, but actually... where people have prepared stuff before the meetings... and they've said " this is how I've interpreted that", and others have said... 'we do this differently and we thought that meant "
"Where we had the reflective analysis for our ELIR... we answered these we say we do, and what we say we're about and so on, and if not, why not?"
"they don't permeate my day-to-day life; they're not pinned on the wall here, whereas my learning and teaching strategy is, my outcome agreement is... So, I'm not using them in a kind of day-to-day basis, unfortunately anytime I do have to take them out, I find myself by and large complying with them; so they may well be woven, and I think they probably are so... they're woven into some of the DNA of what institutions like this do."

**Examples of where there was an attempt at use**
"We tried to use them as we prepared for our ... ELIR, but found that they didn't really help in that context ... They weren't actually workable as a way to... say this is where we are in terms of enhancement"
"they've only been one part of a much wider range of inputs that have come from the quality enhancement processes in .....if you were judging the indicators of enhancement document against the other things, they wouldn't be particularly high on that list"
"As a reflective tool the problem is they're probably too high level in the sense that they don't really get you questioning how far you've come"
"It's not that we've ignored them; I think there would have been a check as they were developed to make sure that we weren't out of synch with them. I certainly don't remember"

**Examples of non-use but familiarity**
"I was not really aware of their existence".
"I suspect that if you looked at that [ELIR] activity you would find that the indicators of enhancement were being followed but without being used"
"I recognise all of these in things that we have been doing to... take forward the institution and... a lot of these have been, and a number of them still are quite centrally driven'.
'although it's been driven in that rather harder QA approach, it's still fundamentally enhancement; it's still activity that you would recognise within the indicators of enhancement and the enhancement themes'
"We're doing what they suggest and imply, but we haven't been using them actively and to the best of my knowledge... other institutions had actually stopped their ELIR work to check against them and had found them useful; we didn't actually do that to my knowledge."
"just looking through the indicators, we've been doing this big style. What we haven't been doing is employing them directly."

**Those who might use EIs in the future**
The issue of non-use should not be conflated with a necessary critique of the EIs themselves. For some, the issue was as much associated with uncertainty about use as with a problem with the tone or content of the indicators.
"I think the answer is no [we're not using the IE], but reading through them again... and thinking about where the organisation is going I think the answer is "but they will have to be", because one of our challenges is if that enhancement culture is embedded and implicit in what we've been doing ... which I'm fairly comfortable that it is"
"the next job we have to do with staff and student engagement, sort of redevelop a learning and teaching strategy which would include an enhancement strategy and look at where the priorities are in the new institution in that regard. Undoubtedly, the indicators will be an extremely valuable tool in doing that; it'll be a valuable tool for me in making sure that when that process is going on, we don't forget about enhancement.

I think it is a really useful document in that it's almost, it's possibly the only thing I've seen that quite succinctly encompasses what the enhancement approach is about and that's useful at the level of communicating to staff and students" 

**Overview**

The comments on the strategic 'positioning' of the ELIs were telling. This refers to the broader issues associated with accounting for the effects and the quality of the T&L within institutions to a wider audience. It is here that the ELIs have some issue of authority. Put simply, there is little systemic incentive to fully integrate the use of the ELIs, other than in a relatively informal way. However, there was *considerable support for the way in which the ELIs did align with what was important about the enhancement approach* within institutions, but respondents were:

less than convinced by their usability design (language, tone etc.),

unclear about their potential uses,

unclear about how they connected to other systemically derived imperatives for information and ranking.

These issues are illustrated by the following quotes from the data:

"The HEI is currently preparing for ELIR (next academic year) 'and I suspect that if you looked at that activity you would find that the indicators of enhancement were being followed but without being used" 

"they clearly fit quite closely with the rest of the quality enhancement frame work and processes of internal and external ELIR review... the way I see them is... focussing on that quality enhancement-led approach" 

"If when the ELIR team come to us... we can have... demonstrated our engagement with all of these issues, then the discussion will be about enhancement and not about assurance and standards. So I think they pragmatically see the value of the indicators as a really good way of going "oh right"... of how they tick the box" 

"In a sense... they feel like a relatively small part of the overall enhancement approach in Scotland, and Scottish enhancement system has influenced the university in a significant way, I think, even though we're not formally part of it for quality assurance processes, but at the same time, the indicators of enhancement are a part of that, but they would not be a prominent part of it, I'd think." 

"If I look at the indicators... themselves and think about the quality enhancement framework, do I feel that they are aligned... well the answer to that is yes, and if I look at the enhancement themes I feel that they are broadly aligned to the enhancement themes, the answer is yes. But if I say are they really useful to an institution engaging in both the quality enhancement framework and the enhancement themes, I'm not sure the answer to that is yes"

**Final thoughts**

It is probable that performance indicators (PIs) of any kind have built in inhibitions (something about the very nature of PIs and their constraining nature, some have called this the 'ontology' of PIs), even at a personal level targets like weight loss, fitness, gym membership, being more controlled, better humoured etc. have a restraining dimension and evoke resistance. This means there is something about PIs which will always be received as 'constraining', even those designed by oneself and used by oneself. Conventionally then, the downside of indicators used in different contexts are summarised below:

Self-generated: potentially self-referential, cautious and lacking ambition, lack of clarity on audience
Programme/policy learning (tends towards a confusion between management information, monitoring, diagnosis and development)

Institutional (potentially produces strategic conduct, associated with control and managerialism)

National (associated with external control, externality in use and audience)

In the light of this analysis, we might argue that there will always be a need for a systemic incentive to use PIs and the EIs do not differ in that respect. Not to create these incentives, we could say, is sociologically naïve. A corollary of the need for clear systemic incentives for use is clarity about the ‘use emphasis’ which at the moment is diffused and contradictory. The range of options that are beginning to emerge, if this analysis is persuasive, might be the following:

More of the same: to retain the loose definition of use and allow the institutions to use their own contexts and needs to determine how EIs are used and how relevant they are. Their status would continue to be a ‘background resource’. They would continue to have quasi ownership, systemic disincentives but reflective uses. A low level systemic incentive might be a requirement that they should form an ‘enhancement agenda’ for use with ELIR. This builds on existing practice.

Systemic imperatives and requirements: a requirement that all institutions construct their own indicators and specify the evidence used to address them. These will be the object of public scrutiny. Institutions must form their own transparent systems with harder/more precise measures and specifications of evidence within the present EIs which are retained. They are renamed as areas of practice and rationalised to avoid repetition.

Open indicators under clear headings: there is a systemic requirement to develop indicators within the broad and obligatory reference to a rationalised set of EIs in all review documents which now act as a positive profile of institutional enhancement characteristics.

Alignment and incorporation with other forms of indicator: the Scottish HE system abandons the UK wide NSS and develops its own survey instrument which is much more closely aligned to the categories within the EI framework.

References


Enhancing Professional and Transitional Skill Development for Graduate Students and Postdoctoral Fellows: SKILLSETS at McGill University

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ABSTRACT:
In 2009, McGill University launched SKILLSETS, a program of professional development for graduate students and postdoctoral fellows to complement their advanced academic instruction. This extra-disciplinary transitional training is essential for the development of "highly qualified personnel," a critical need for global innovation and advancement. SKILLSETS was inspired by recommendations in a 2008 Canadian Association for Graduate Studies' (CAGS) paper on professional skills development for graduate students; this paper identified the following areas as of particular importance: communication and interpersonal skills; critical and creative thinking; integrity and ethical conduct; knowledge mobilization and knowledge; translation; leadership; life skills; research management; societal/civic responsibilities; and teaching competence. SKILLSETS now offers more than 200 events annually with 5,000 graduate student and postdoctoral attendees. This paper discusses the development of SKILLSETS as a university-sponsored program, including the involvement of internal partners, and the impact of creating unified communications channels. It also talks about SKILLSETS' expansion to extra-mural partners: industry, government, and NGOs.

1 Background
The important challenges of preparing graduate students for professional success both within and without the academy was identified in 2008 by the Canadian Association for Graduate Studies (CAGS) in a seminal paper that articulated the skills and competencies required for "highly qualified personnel", necessary for the knowledge economy. To address these challenges McGill University embarked on a program of professional development to complement advanced academic training of graduate students and postdoctoral fellows. The CAGS paper provided a framework that guided the creation of the university-wide program called SKILLSETS. This centrally-managed suite of programs provides and sponsors professional development offerings to all graduate students and postdoctoral fellows, enhancing and supplementing their disciplinary training.

The CAGS paper grouped the competencies needed for professional success to complement academic skills and knowledge under nine core themes:
Communication and interpersonal skills
Critical and creative thinking
Integrity and ethical conduct
Knowledge mobilization and knowledge translation
Leadership
Life skills
Research management
Societal/civic responsibilities
Teaching competence

Initiated in 2009 and based on these themes, SKILLSETS has developed a wide-ranging program, increasing over the last four years from approximately 130 sessions in its first year to over 235 today. More than 5,000 graduate students and postdoctoral fellows from all disciplines participate in the varied professional development opportunities offered; feedback indicates that they appreciate the benefits. SKILLSETS offerings are generally not discipline-specific, and the interdisciplinary interaction is itself often one of the important benefits. The University's judgment of the program's success was validated when SKILLSETS was awarded the annual CAGS/ETS Award for Excellence and Innovation for enhancing the graduate student experience in 2012.

2 Processes and strategies used
Enhancing the graduate experience and student engagement are top priorities for McGill, but, as typical of many large Canadian institutions, the academic diversity (and different degrees of structural autonomy) of 11 Faculties and the heterogeneous mandates of dozens of service units is a reality that works against central coordination and comprehensiveness. At McGill, many professional development workshops were offered for graduate students on an ad hoc basis by individual Faculties, departments and service units. This uncoordinated and decentralized structure resulted in several challenges: students had difficulty learning about available opportunities, units did not combine efforts—meaning that scarce resources were not always used as effectively as they could have been—topics that might have drawn a larger group across units were often not addressed, and there was no needs assessment of the students to determine their demands and objectives and how best to meet them.

The strategy used by Graduate and Postdoctoral Studies (GPS) and Teaching and Learning Services (TLS) was to create a centrally-managed, university-wide program that would work with the community to put forward a comprehensive set of professional development activities. The implementation process had three components: branding, surveying and benchmarking, and partnership building.

2.1 Branding
First, we engaged in a collaborative process to develop a brand for the suite of workshops complemented by mechanisms to advertise the offerings. McGill's GPS and TLS worked with Communications and External relationships to create the branded artifacts, including the SKILLSETS name, logo and slogan. After consultation, the following was chosen:

![SKILLSETS logo]

This branding is used in every communication and at every event involving our training. The goal of the branding activity was to create a recognizable image that would foster the uptake of the offerings by graduate students and postdoctoral fellows. By marketing SKILLSETS activities as a package, we strove to enhance the reputation of McGill's graduate and research programs and have a positive impact on recruitment and retention.

2.2 Surveying and benchmarking
In parallel to the branding exercise, we initiated two data-gathering activities: a survey of then-existing internal offerings in skills development and a benchmarking exercise that analyzed the offerings of our peer institutions. Benchmarking metrics included comprehensiveness of programming, exemplary offerings and commonalities to McGill that would facilitate similar implementation strategies or programs. We also collated information from websites and direct communication with service units and departments about the activities that already existed at McGill. We categorized all offerings within the nine core themes. This allowed us to identify gaps at the institutional level as well as opportunities for sharing and economies of scale.
2.3 Partnerships
The inventory of existing activities facilitated the creation or enhancing of collaborations with McGill Faculties, departments and service units. Over 30 partnerships have been established with internal units such as the Library, the First Year Office, Career Planning Services, the Office of the Vice-Principal Research and International Relations (Grants and Ethics), the Office of the Dean of Students, Communications Services, and the Post-Graduate Students’ Society. As well, more than 40 graduate students, 100 professors and 70 academic administrators have been involved in developing and co-facilitating events.

2.4 Model used to structure our activities
Developed in close collaboration with GPS, the SKILLSETS program is now housed within TLS. It uses a hub and spoke model: the unit acts as a clearinghouse as well as an initiator, bringing together resources, workshops and offerings from across the university and promoting them in one central calendar. This model has proven to be effective in engaging the graduate student and postdoctoral fellow population. We have also hired a small team of graduate students whose input has increased our ability to identify developing issues and create appropriate programming.

As SKILLSETS developed and the number of offerings increased, it became clear that there were different levels of contribution needed from our unit and our university partners to manage the suite. Given this realization we developed a structure of support with three levels of involvement: flagship, collaboration, and support activities.

Flagship activities
These central, defining activities are our most important in both scope and scale: Learning to Teach Day, Academic Integrity Day, and Basic Business Skills for Non-Business Students. Participants for each of these events are drawn from the University as a whole and number in the hundreds. As unit lead, TLS manages all aspects of content development and facilitation, communication, and logistics. These Flagship offerings typically involve a working group led by a graduate student (Graduate Education Assistant) with members of academic staff to develop content and advise on logistics. As these events are large and complex, the costs and logistical arrangements of registration, space, equipment, and refreshments can be significant and require a good deal of central resources.

Collaboration
For these activities, we expect to work jointly with other units, including requiring significant input in the content. The responsibility for these sessions is shared by TLS and the partner unit(s). For example, MyResearch, Safer Spaces, and general Orientation are true collaborations that involve partnerships from development to assessment. The team structure is adapted to the needs of the event. Responsibility for logistics and costs are shared equally and promotion is done through the SKILLSETS communications channels and by the partner unit(s).

Support
A support relationship is one where the partner unit takes on the primary responsibility—substantive content—and SKILLSETS’ contribution is mostly in promotion and communication. For example, Career Planning and Counselling workshops have a series specifically on academic and non-academic careers, their specialty. SKILLSETS provides advice on content development, logistics, and costs when invited, but these are mostly borne by the unit. We always lead on promotion and in some cases provide logistical support such as registration.

3 Internal partner contributions
As mentioned above, we have been able to identify a rich pool of partners that has contributed to the program’s success in three key areas: developing comprehensiveness in programming, annual planning, and development from both "bottom up" and "top down".

3.1 Varied expertise
First, partners have developed many of the sessions currently promoted in the suite from within their areas of expertise. The generosity and collegiality of the McGill community has meant that we can draw from several areas of expertise to develop offerings across all nine themes. For example, Counselling Services offers Doctoral Support Groups and Mindfulness Stress Management sessions while the Career Planning Service provides assistance in career development, summer employment, and internships through individual graduate student advising and workshops (Job Finding Club and Emotional Intelligence workshop). We continually evaluate areas for development by asking students and professors what topics are needed. This ongoing assessment informs annual programming and we are able to respond by working with partners to develop new offerings and maintain a full and responsive complement of effective programming.

3.2 Calendar of annual offerings
Maintaining standardized annual offerings has been a critical part of SKILLSETS’ success: multi-year consistency, predictability, and security are achieved by having partners commit to offering key sessions at different times throughout the academic calendar year. For example, First year Office and the Post Graduate Students Society (PGSS) Orientation events are hosted in August and January and provide key contacts for graduate students to begin their programs; Fellowships applications writing sessions are held by GPS in September; Career Planning Services holds Academic Career week in October and Graduate Career month in spring. Another effective example is the development of "MyResearch" at McGill Library. The Library has been an exceptional partner, offering targeted workshops for graduate students that allow them to benefit from discipline-related content and convenient locations. "MyResearch" graduate seminar series consists of four independent modules, offered three times per academic year, that are co-facilitated in five library locations across the university by a liaison Librarian and a graduate student. Survey results show that over 90% of the participants agreed that the workshops were useful for professional development.

These annual offerings allow us to generate a yearly calendar of events that is sent to Faculties and Graduate Program Directors for dissemination to professors, students, and administrators. Partners now send us their special offerings to promote to the entire graduate community.

3.3 Responsiveness to community
Cross-university partnerships have been particularly helpful in ensuring that programming is integrated and developed from both "bottom up" and "top down" approaches. On the one hand, partnering with PGSS, hiring graduate students and ongoing assessment means that we have direct graduate student input. In some cases, students have approached us with ideas such as Basic Business Skills for Non-Business Graduate Students, Computer Programming, and Emotional Intelligence. We have in turn invited them to co-develop offerings. On the other hand, faculty members or departments have also approached us with identified needs; where appropriate, we have designed discipline-specific offerings. In some cases, we identify and approach individuals on-campus who can contribute their own skills and expertise to a University-wide offering such as Conflict Management. This bi-modal approach has been invaluable to the effectiveness of the program.

4 Enriching the environment
Improved communication strategies and channels
SKILLSETS developed a three-pronged approach to communication: we host a dedicated website, use direct e-mail contact, and offer an online events calendar.

The SKILLSETS website provides an overview of the themes, specific information about upcoming events and internal and external resources for the events. We were also able to take advantage of existing communication channels through joint promotion and cross-listing. We therefore both "pushed" and "pulled" SKILLSET informational content to and from our potential audience.

During the academic year an Info-Bulletin is sent every two weeks through direct e-mail content to graduate students, Post-doctoral fellows, graduate program directors and faculty members announcing upcoming events and providing links to related resources. This e-mail messaging is supplemented by posters and bulletins for flagship events.

To build the SKILLSETS brand and increase awareness about ongoing events, we also created event notices that were made available through the University’s existing online events notice board system; these promotional materials were often picked up by departmental websites. Flagship events were also featured on the McGill front page, providing tremendous exposure.

One example of the impact of our communications strategy is the fellowships writing activities. In September, 2009, a series of workshops was organized to help graduate students write winning fellowship applications for federal funding agencies, such as the Social Sciences and Humanities Research Council (SSHRC), the Natural Science and Engineering Research Council (NSERC) and the Canadian Institutes for Health Research (CIHR). Prior to SKILLSETS, attendance at similar events was between 50 and 75 per session; the first session SKILLSETS offered had over 600 registrants.

4.2 Comprehensiveness and Excellence:
SKILLSETS’ effectiveness is measured by three different criteria: comprehensiveness, attendance and satisfaction.

Comprehensiveness
As noted above, the initial prospectus for SKILLSETS identified nine themes, adopted from the original CAGS 2008 document supported by the Society for Teaching and Learning in Higher Education and the federal Tri-Council ranting agencies. Each theme was addressed through our programming. (A full list of offerings is available at www.mcgill.ca/gps/students/skillsets.)

Attendance
Since its launch in September 2009, there have been over 7,500 graduate student attendees at the different SKILLSETS events. Participants have included Master’s and Doctoral students from all Faculties, as well as Post-doctoral fellows. There a number of instances of inter-university participation as well (Université de Montreal, Concordia University, etc.)

Participant satisfaction
Using both paper and on-line questionnaires, we systematically evaluate SKILLSETS offerings by soliciting satisfaction ratings and comments from all participants. Of the sessions that have been completed to date, roughly 90% of the participants "agreed" or "strongly agreed" that they were satisfied with the offerings and that "the workshops met their expectations". Participants also reported feeling more confident both academically and professionally after attending sessions. Analysis of participants’ written comments revealed that a significant majority of them found the events “fantastic”, "rewarding", "beneficial to career” and "excellent".
Optimizing Resources:
An important step in achieving a high-performance professional skills program was to optimize available resources. We developed an approach that included careful budgeting, cost-sharing with partner units and hiring excellent graduate students.

Budget
Our initial approach to budgeting was to estimate costs by theme, including graduate student employee salaries. This quickly proved unwieldy, and we now have budgets for our flagship events, shared costs for collaboration events, and graduate student salaries. Graduate student employment accounts for roughly 60% of the budget. We also now have enough experience to be able to estimate "costs per student" for different kinds of events, extremely helpful as we consider new events.

Cost-sharing with partner units
A number of partnered SKILLSET events involve cost-sharing—contributions by co-sponsoring parties: e.g. Graduate students' salaries, venue and food costs, and rental fees. Cost sharing is overseen by SKILLSETS; we have developed an understanding of workload and necessary distribution of the cost-sharing commitment (student time); determining when cost sharing is necessary and appropriate; and accurately recording and reporting cost-sharing expenses.

Graduate student hiring
SKILLSETS hires approximately five graduate education assistants annually from a range of disciplines. This cross disciplinary approach means that we can assign each graduate student employee a portfolio in his/her area of interest and have discipline-specific feedback. We also have annual planning meetings and mentor new hires with senior graduate student employees to ensure they have varied experience and training opportunities.

5. External links
SKILLSETS supports critical links with industry, government, and NGOs. Canada's Tri-Council funding agencies, along with universities and employers, recognize that research and technical skills gained during graduate education and postdoctoral training are important for creating highly qualified personnel but equally important are those transitional skills that extend beyond disciplinary expertise. As a result, there is an imperative for universities to prepare graduate students and postdoctoral fellows with skills that help them fit into emerging job markets.

We have links and engage in collaborations with a variety of organizations. For example, Mitacs, a program of the federal government, supports connections with the industrial sector. The Mitacs Accelerate internship introduces participants to the specific challenges of the private sector. In other cases, we invite extra-mural partners to host sessions on campus. For example, the Canadian Intellectual Property Office offers sessions on aspects of Intellectual Property; the McGill University Health Centre hosts Biomedical Research Ethics workshops for graduate students on our campus and strives to promote a culture of ethical conduct among all professionals of the research community, and finally, Pharma and consulting firms such as Boston Consulting and McKinsey & Co offer sessions within the Basic Business Skills program that provide expertise for our graduate students and postdoctoral fellows and offer the companies opportunities for recruitment.

6. Conclusion
SKILLSETS is focused on providing a value-added experience to the university training environment to better prepare research trainees for their future careers in industry, government or academia.

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Internationalisation of the curriculum

What does it mean for us? Academics' perceptions of internationalising the curriculum: The Global Perspectives Project at Glasgow Caledonian University

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ABSTRACT: Internationalisation has become another buzzword in higher education. Ambitious aims and strategies spring up everywhere but the question of how to design and deliver an internationalised curriculum remains largely unanswered. Glasgow Caledonian University launched a new three-year strategic change project called Global Perspectives which aims to explore what the term 'internationalisation of the curriculum' means to academic staff and students in different subject areas, how they perceive the benefits and challenges involved in embedding it and what support academics require to design and deliver it. The paper reports on the findings of the first research phase which focuses on the views of academic staff. They indicate that academics see no difficulty with embedding international aspects in their teaching but that their students can be reluctant to take up opportunities for study and work abroad. Other challenges include an over-reliance on few enthusiasts and insufficient guidance on the curriculum development process.

Introduction
Internationalisation has become one of the buzzwords in the debate about the aims of higher education over the past 20 years (Turner and Robson, 2007). New international strategies with very worthy ambitions and impressive recruitment targets spring up everywhere, a wide variety of extra-curricular activities and induction programmes for international students is on offer in all institutions and academics are being asked to embed 'internationalisation' in their teaching. The question of how that can be done remains largely unanswered though (Leask and Bridge, 2013). There is considerable evidence that the "gap between the announcement of loudly trumpeted schemes and actual change in education practice" (Reid et al, 2010, page 4) has not been closed yet. While academics understand the need for universities to increase their income through recruiting premium-fee paying students from countries outside the EU/ EEA area, they struggle with the call for an 'internationalised curriculum'. How can this "new frontier" (Ryan, 2012, page 3) be addressed in their own subject discipline, in the context of their own university and in their daily practice? There seems to be "no one correct" way of internationalising the curriculum (Ryan, 2012, page 6). The responses to the challenge ahead seem to vary from university to university and subject to subject.

This paper provides a first insight into Glasgow Caledonian University's (GCU) approach. It aims to explore how senior academic staff in different subject areas experience the impact of the university's new internationalisation strategy on learning and teaching, what an internationalised curriculum means to them and how they perceive the benefits and challenges of embedding it.

1 The debate about an internationalised curriculum
There is no shortage of definitions of 'internationalisation' or an 'internationalised curriculum'. Neither the plethora of academic literature on the theme (Caruana and Spurling, 2007) nor the abundance of university strategies has made the concepts any clearer though. It remains a "contested notion" which can be perceived as "elusive and unsatisfactory" by academic staff (Turner and Robson, 2007, page 4). Knight's widely cited definition of internationalisation as "the process of integrating an international, intercultural or global dimension into the purpose, functions or delivery of post-secondary education" (Knight,
2004, page 11) puts the focus on university systems and processes in the widest sense. It is less helpful in assisting academics in reviewing their curricula and, if required, make the necessary changes. Leask provides more clarity when she points out that an internationalised curriculum "will engage students with internationally informed research and cultural and linguistic diversity. It will purposefully develop their international and intercultural perspectives as global professionals and citizens" (Leask, 2009, page 209).

Van der Wende (1996, page 187) suggests a variety of approaches in her widely cited 'typology of international curricula'. They include curricula in which the traditional/original subject area is broadened by an internationally comparative approach, programmes which prepare students for international professions and curricula that lead to joint degrees from different countries. While this typology reassures academic staff that there are many ways of internationalising a curriculum, it does not provide any guidance on how it can be achieved. Nevertheless they are charged with putting it into practice. Their role in the internationalisation process is "vital" (Dunne, 2011, page 615). Sanderson refers to them as "a catalyst in assisting their institutions and their students to realise their internationalisation goals" (Sanderson, 2011, page 662). As Dunne and others (Bell, 2004; Turner and Robson, 2007; Friesen, 2012) point out, their genuine commitment to curricular change is essential if the university's strategic internationalisation ambitions are to be achieved. Friesen (2012, page 2) sees their role as "primary agents in the internationalization process" who can not only actively further the process but also inhibit it.

Do universities know where their own staff are on the "spectrum of acceptance of internationalising the curriculum"? (Bell, 2004, page 1) Do they view it with a degree of scepticism, embrace it wholeheartedly as a positive step in the right direction or reject it as a negative development? Leask and Bridge (2013, page 81) point out that studies of the internationalisation of the higher education curriculum are very rare. Institutions often rely on anecdotal evidence rather than actual data. This paper makes a contribution to filling that gap. It presents the results of a study at Glasgow Caledonian University which asked senior academics from different subject disciplines how they define their own place on their university's journey towards internationalising the curriculum, where they see opportunities for change and how they perceive any barriers that might lie ahead in the process.

2 Background to the study: The GLOBAL PERSPECTIVES Project

The GLOBAL PERSPECTIVES Project at Glasgow Caledonian is a university-wide strategic change initiative which supports academic staff in embedding an internationalised curriculum as required by the university's new Internationalisation Strategy. Led and managed by GCU LEAD (Centre for Learning Enhancement and Academic Practice ) it works in partnership with the academic schools, the Students' Association and relevant support departments. The term GLOBAL is used as shorthand for the process of developing an internationalised curriculum at GCU: Growing awareness of international issues; Learning from other cultures; Observing and reflecting on cultural differences; Being prepared to challenge oneself; Avoiding cultural stereotypes; Listening to culturally different points of view.

The three year project (2012-2015) consists of four phases. Phase 1 is a research phase which aims to establish how academic staff and their students assess the opportunities for and barriers to embedding an internationalised curriculum in their programmes. This paper presents some of the results of the research with the academics. The findings from the research with students will be presented at a later stage. Phases 2 and 3 of the project will pilot innovative interventions, evaluate their effectiveness and develop support materials for staff. In phase 4 recommendations will be made for a programme of CPD activities to ensure that an internationalised curriculum can be rolled out in all of GCU's core programmes by 2015.
The research reported on here adopted a mixed-method approach. An on-line survey was sent to all programme leaders (n=85) in the university’s three schools (Glasgow School for Business and Society, School of Health and Life Sciences, School of Engineering and Built Environment) which was followed by individual, semi-structured interviews with eight of the university’s nine Heads of Department and nine senior staff with special responsibility for internationalisation. Tables 1-3 present an overview of the responses to the survey and the interviews. Each interview lasted approximately 60 minutes.

Table 1: Responses to on-line survey

| Programme leaders invited to participate | 85 | 100% |
| Responses received | 48 | 56% |
| Glasgow School of Business and Society | 23 | 48% |
| School of Health and Life Sciences | 15 | 31% |
| School Engineering and the Built Environment | 10 | 21% |

Table 2: Numbers of interviewees by school

| Glasgow School of Business and Society | 5 |
| School of Health and Life Sciences | 6 |
| School Engineering and the Built Environment | 5 |
| Central International Office | 1 |
| Total: | 17 |

Table 3: Roles of interviewees

| Assistant Dean International | 1 |
| Head of Department | 8 |
| Senior Lecturer / International Lead | 6 |
| Professor | 1 |
| Manager in International Office | 1 |
| Total: | 17 |

The interviews were recorded, transcribed and analysed inductively by clustering the responses around key themes from the question framework. The questions were designed to explore participants' perceptions of the university's new internationalisation strategy and their interpretation of the term 'internationalisation of the curriculum' (IoC). The on-line questionnaire asked programme leaders similar questions on the value of an internationalised curriculum in their subject. It also included questions on their perceptions of their students’ international awareness and on the need for CPD opportunities for themselves. The dataset from the survey was too small for statistical analysis.

3 Findings

The responses to the two research phases generated a large amount of data. Only a small percentage of it can be presented here. This paper focuses on some representative results from the individual interviews. Selected results from the survey will be added to provide a wider perspective.

3.1 Lost in translation? The difficulties of operationalising an institutional internationalisation strategy

Staff were asked to assess the value of GCU's new Internationalisation Strategy which was published in the autumn of 2012. How does it impact upon their own work and how is it perceived by colleagues charged with its implementation? All interviewees felt that the new
strategy was a positive development because it moved away from the previous strategy's almost exclusive focus on international student recruitment. Its new emphasis on the importance of addressing internationalisation in the curriculum for all students from home and abroad was welcome. One respondent emphasised that she felt encouraged by the university's refreshed strategic commitment to the importance of international student exchanges. In her view it would endorse the International Office's efforts to increase GCU's very low participation rate in international exchange activities like ERASMUS 64 and strengthen her argument in discussions with colleagues who might be reluctant to promote it to their students.

"I think they have made a really serious commitment...and for the first time I am getting a real feeling that they are able to understand that internationalisation isn't just a one-way traffic, it can't only be about international student recruitment."

How successful the university's efforts are in persuading academics that internationalisation is not just driven by recruitment, remains to be seen though. In the survey for programme leaders 89% felt that the university considers recruitment to be very important whereas only 33% thought that raising UK students' international awareness was a top priority in GCU's Internationalisation Strategy.

When it came to discussing the best way of implementing the strategy at operational level in the schools, there were more critical voices. Staff commented on the "missing link" between the university's lofty ambitions and the daily learning and teaching activities on their programmes. They felt that the process of reaching colleagues at module level was not made sufficiently clear. More guidance on how an internationalised curriculum could be contextualised in their subject area would be welcome. In their view the process of translating a strategic vision into daily practice could lose momentum if there is insufficient additional funding to support its implementation or if other university strategies contradict it. One interviewee explained that he regularly "gets rapped over the knuckles" if he overspends his budget to pay for international study trips. Another one pointed out that the pressure on departments to produce high progression rates can lead to a situation where staff are reluctant to teach large numbers of international students who might find it harder to pass assessments and therefore 'spoil' the department's progression statistics.

"...there's a large number of people who just see it (teaching international students) as more work...you have people whose English is not great...and then they fail. So why would you take people from a different culture when they've got a higher chance of failing? ...you know, turkeys don't vote for Christmas."

All interviewees commented on the conflicting messages staff receive from the university executive. Achieving ambitious international student recruitment targets and key performance indicators for progression can leave little time for redesigning the curriculum. "People need time to reflect and be creative (in embedding an internationalised curriculum). When you are being bombarded with 101 things, I mean where is the time?"

Some respondents were concerned that internationalisation of the curriculum might be yet another "fashion" which will fade and be replaced by a new initiative from the university executive very soon. All of them were committed to addressing internationalisation in learning and teaching and invest time in it but they also worried that they were under too much pressure to produce quick results for a 'project' that might not be at the top of the university's agenda for very long.

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64 In the 2011-12 academic session 81 GCU students participated in ERASMUS exchanges. 24 took part in non-EU exchanges which constitutes less than 1% of the total student population.
"There is a big spotlight on it for a period of time and then it sort of diminishes really. It moves on to something else and I think it’s about sustaining that kind of level of focus..."

3.2 Making connections: Is education without internationalisation possible?

When asked how they would internationalise the curriculum in their department and their subject areas all participants emphasized that their discipline cannot be taught or researched in isolation from developments and practices in the rest of the world. They felt that there is no longer a place for a local or national approach to solving the problems universities have been tasked to address. This applies to vocational and non-vocational disciplines. A comment like "How can you teach sociology without having an international outlook?" is representative of the views expressed in all interviews. Staff are aware that they need to prepare their students for the demands of a globalised world through integrating international perspectives in their teaching and research. It was perceived as intrinsic to their professional practice and inseparable from good quality education. There was a feeling though that they do not need to be instructed by university management. One respondent pointed to academics’ dislike of a diktat from above. "It becomes an instruction, it becomes an order." He felt that an internationalisation strategy could be perceived as patronising by staff who "are pretty supportive of the internationalisation agenda" anyway.

While there was agreement that international perspectives need to be embedded in the subject specific teaching, views on the best way of doing it varied widely. All respondents chose a particular focus and rationale for addressing internationalisation in the curriculum. The most common one was student employability which is at heart of GCU’s mission. Participants from the technical and the science subjects put most emphasis on it. They were very aware of the need to prepare students for success in the competitive global employment market which requires international team working skills and cross-cultural understanding. They were concerned though that GCU students were too often unaware of the competition from peers in other countries who speak more than one language and have experience of studying and working abroad. One of the Heads of Department in the School of Engineering and the Built Environment spoke about his students meeting their European counterparts on a study trip to France. For the first time they realised that their peers were more mobile and enterprising than them and that they might lose out on attractive job opportunities. He explained: "Now sooner or later you are going to be in competition with someone who says 'Well, where can you work? I can work anywhere in the UK and in Europe'."

All interviewees considered it irresponsible not to make their students aware of international variations in professional practice and provided many examples of how that can be done. They ranged from presenting European construction standards in civil engineering, "global tools and methodologies" in computer science and electronics to assessing different design specifications for power generators in different climates and understanding global health issues such as HIV or TB. One of the interviewees from the School of Health and Life Sciences recalled a class which required students to present the reasons for suicide among young people in different countries. An analysis of the official statistics from Scotland and Singapore revealed national differences which surprised and shocked the Scottish students.

"What was interesting was the reasons why people commit suicide...in Scotland and in Singapore. In Scotland it’s to do with ill health, drugs, alcohol abuse, those kinds of things. In Singapore it’s academic stress....there was a silence in the class."

She explained that this was a special learning experience for her home students who, as a result of this class, were motivated to find out more about Singapore’s society, its values and education system.
Participants from the business and management subjects made a connection with other issues and agendas in their field such as the requirements for PRME (Principles of Responsible Management Education) accreditation which stipulates that university curricula include "critical issues related to global responsibility and sustainability"\(^6\). Examples of how that can be done included modules in Fashion Marketing which address problems with ethical supply chains and in Tourism Development where students are asked to compare different national marketing strategies to understand how Scotland can compete with the "other 130 odd countries in the world who want to be tourism meccas."

Top performance in the Research Excellence Framework (REF) was cited as another driver for an internationalised curriculum. It was emphasized that good quality research is carried out on a global stage in a competitive global environment. Academics who collaborate with colleagues at international level, apply for research funding from international bodies and then present the results of their research to their students were considered the most qualified to deliver an internationalised curriculum. Research excellence would also enhance the university's profile abroad and attract more international students as a result.

"The challenge is the REF, I think the challenge is where we end up in the REF. If we don't have a reasonable profile it would be very difficult for us to crack these (international recruitment) markets in the way that we should."

The results from the survey support the views expressed in the interviews. The majority of respondents (61%) agreed that their subject area is broadened by an internationally comparative approach.

### 3.3 The challenges of embedding an internationalised curriculum: breaking the mould

When asked to identify the barriers involved in internationalising the curriculum all but two of the interviewees referred to their students' attitudes which they characterized as "parochial". As experienced academics who have spent an average of almost 20 years teaching at GCU they had seen a large number of students whose career ambitions are centred exclusively on Glasgow and the surrounding areas. Finding a job in Glasgow was their first plan after graduation. Only if that was not possible would they consider options elsewhere. Participants from the School of Engineering and the Built Environment were particularly concerned that their students restrict their own choices and do not always give themselves the chance to fulfil their full potential because that might involve leaving Scotland. One Head of Department felt that he had to break what he considered to be the "Scottish mould". "I feel that students are happy to take a lesser job, but it's one that allows them to remain within this area." One of his colleagues summed up the attitude he had come across in very many of his students " If I could live and die in the West of Scotland that'll be fine."

Results from the survey reveal that only 37% of staff felt that the majority of their home students are aware of international issues; 42% thought that only a minority of them are and 20% felt that they are not aware.

Another interviewee suggested that studying in England would have been a first step for students to widen their horizons in the past but the high tuition fees at English universities have made that almost impossible. He added that a certain reluctance to leave Scotland was particularly pervasive among undergraduate students who "have a long way to go" in embracing the international agenda. " For them "global citizenship would be an aspiration, I

\(^6\) See the six principles of PRME [http://www.unprme.org/the-6-principles/index.php](http://www.unprme.org/the-6-principles/index.php)
would say, because, to be frank, we have an agenda in Scotland that encourages students to stay at home."

He was concerned that a side effect of the different funding models in Scotland and the rest of the UK is an ever increasing reluctance among Scottish students to seek opportunities elsewhere in Britain. While he welcomed the ambitions of an international education he also called for realism in assessing GCU students' readiness.

"To talk about our students as global citizens is good ... but the reality is that we need to drive them into a recognition that it's a big world and that coming from Glasgow, getting educated in Glasgow and working in Glasgow is unlikely to be your future scenario. That if you look ... wider than your Glasgow university, your opportunities will increase."

The colleague from the university's International Office was equally worried that students who live at home with their parents are too protected by them and therefore less prepared to fend for themselves when studying abroad. She felt that the double challenge of living in a foreign country and looking after yourself for the first time can frighten young undergraduates and stop them taking part in exchanges.

"They are not moving out of their comfort zone at all (because they live at home) and so it's a big shock if you suddenly go to Finland and we get things like 'they don't have curtains at the windows; what am I supposed to do now?"

She also recalled an incident when a father phoned her to complain that his daughter did not have a table in the kitchen of the student residence in Finland.

While there was consensus that the students need to widen their horizons, the interviewees did not put the 'blame' entirely on them. They were equally aware that academics themselves do not always practise what they preach and included themselves in their criticism. Most of them had spent almost their entire academic careers in Glasgow and at GCU in particular. They came across as enthusiastic and committed to internationalising the curriculum but also recognised that they themselves were not always the best role models for their students. When asked whether she had ever taken part in international staff exchanges or knew of colleagues who had, one respondent said that she knew of only one person in her department. She felt that it was more common in other universities. Another respondent explained that he had never left his home town just outside of Glasgow. One of his colleagues agreed. "I think it's a Scottish thing... we need to break that mould and I think in some respects that's beyond our ability."

It is important to note though that such an attitude is not necessarily representative of all GCU staff. Of the 48 respondents to the on-line survey 54% reported that they had lived and/or worked abroad. Of those 44% had spent less than a year abroad, 28% had been away for one to five years.

The attitudes of students and staff were cited most often as barriers to IoC but they were not the only ones. Some respondents from the Health School felt that their professional bodies would not be flexible enough to accredit modules that strayed too far away from the prescriptive core programme. Others from the same school did not agree though. They claimed that some colleagues might hide behind their professional bodies to avoid a debate about curricular change. The argument that the programme was "full" and did not allow room for international aspects was made on several occasions by staff in the health/ science subjects. It came up most often in the discussion about GCU students' poor foreign language skills. When asked whether their students take up the opportunity to learn a language as part of their studies, interviewees explained that there was no provision for it in their curriculum. "I think the language thing is a big, big plus...it would be nice to have a gap
in the taught programme where students could do some language skills...(but) there is no room."

Like most of his fellow interviewees he also referred to his own poor language skills. Responses to the on-line survey confirm that a substantial number of senior staff (42% of the sample) do not speak a language other than English.

3.4 The way forward: sharing responsibility

There was considerable agreement among the interviewees that GCU was at the beginning of its 'internationalisation journey'. All of them reported to be encouraged by the new strategy but they also felt that the university relies almost exclusively on the efforts and the commitment of the enthusiasts and 'champions' who do not need to be persuaded of its importance. They often add many hours to their workload without any special recognition or reward while the majority of staff keep a sceptical distance or just pay lip service. One of the international leads pointed out that his role "still hasn't had a tariff attached to it as to what remission you receive." His teaching load had not been reduced to take account of his international responsibilities which include international recruitment and exchanges.

The interviewee from the International Office who is not an academic member of staff but deals with them on a regular basis was concerned about the uneven uptake of the internationalisation challenge. When asked whether academics play a central role she said "I think they do but I think it's not really happening. It's not happening in any consistent way across the university. So that's a big problem." She had even experienced a distinctly negative attitude from some academics who considered student exchanges "a big hassle". Another respondent who is the international lead in his department reported that colleagues pass all international students on to him because "they think it's too much trouble". He felt though that most resistance came from those "who are close to retirement age, who are very, very set in their ways".

There was a strong feeling that the responsibility for internationalising the curriculum needs to be shared more evenly among all academics. One respondent suggested a "carrot and stick approach". The enthusiasts need to be rewarded but at the same time "there has to be some kind of structural mandate that makes them (engage) even if they don't in their hearts of hearts believe in it...they have to do it ...because it is expected of them." She suggested that such an expectation should be communicated to new lecturers as part of their induction to the university and the Postgraduate Certificate Learning and Teaching in Higher Education. There was also a view that the process of internationalisation needs to start with "internationalising the staff" who might not have the expertise or experience to shape a new international curriculum. One interviewee from the Health School reported that students in his department had complained about a "lack of knowledge of staff about employment opportunities abroad". In their defence his colleagues "would argue that we're training for Scotland. We don't train for export...why do we need to know about what the job situation is in Denmark?"

When asked what can be done in the short term to internationalise the curriculum there was consensus that the university cannot wait for everybody to be converted. Even small interventions and adjustments that do not require large amounts of funding can make a difference. Many suggestions were put forward. They ranged from using departmental funds to support short study trips abroad for students who are not yet ready to take part in a full ERASMUS exchange to adopting a more flexible approach to student assessment. One of the Heads of Department from the School of Engineering and Built Environment pointed out that their students can work on an accredited project in English during their semester in Europe instead of sitting the exams at the host university. Such flexibility alleviates students'
anxiety about the academic impact of their studies abroad and gives them the opportunity to experience life in a foreign country. It was felt that even a short time abroad can make a difference to students' international awareness. "It can really open their minds ...and almost invariably they come back and they want to embark on a full exchange because they understand it". A flexible approach to curriculum design was considered most important to improve student uptake of international opportunities. GCU's new learning and teaching strategy (Strategy for Learning) and the current university-wide programme review promote such flexibility. They suggest a liberal arts approach to programme design which would allow students to choose generic international modules from outside their core programme.

Other suggestions included using donations from international alumni to fund placements and study trips abroad as well as harnessing the experience of returning exchange students who can act as student mentors and role models for their peers. Interviewees agreed that the university needs to take a long-term view to achieving its internationalisation targets. In their view showing flexibility and investing effort to overcome short-term problems will lead to long-term gains. One respondent cited the example of French undergraduate exchange students who returned to GCU as paying PhD students a few years later.

4. Conclusion

This study suggests that GCU academics can be placed in the middle of Bell's "spectrum of acceptance of IoC" (Bell, 2004) where internationalisation is viewed as possible but not yet integral. All of the interviewees supported the idea of internationalising the curriculum but they also identified substantial challenges in the process of making it a reality. The results of the on-line survey show an almost even split between programme leaders who considered IoC "possible but not essential" (40%) and those who felt it is "essential and should be integrated" (51%). Only 9% thought "it is not required" because the curriculum is the same in any context. It is also interesting to note that openness to IoC did not vary across the subject disciplines. Clifford's findings that academics in the sciences were more reluctant to make adjustments to their curriculum could not be confirmed here (Clifford, 2009). This might be explained by the fact that at GCU the 'pure' sciences are all integrated in applied, often vocational programmes. Nevertheless, the discipline played an important role in this study. All respondents placed it at the heart of the internationalisation process when they emphasised that their subject cannot be taught or researched in isolation from global developments. Leask and Bridge refer to the "enormous power" the paradigms of the discipline exert in the curriculum design process (Leask and Bridge, 2013, page 85). She points out that discipline teams need to find their own distinctive approach to and rationale for IoC in a process of review and reflection. Academics at GCU seem to have started that process. A set of resources designed by the Global Perspectives Project will support them in this. It is, however, only the first stage of the five stage process of IoC that Leask and Bridge suggest. The other four stages (imagine new ways of thinking; revise and plan; act; evaluate) will take a considerable amount of time and resources which need to be made available by the university if it is serious about its internationalisation aims. Leask and Bridge ask for "careful nurturing" required for the IoC process (Leask and Bridge, 2013, page 98). Only if such a nurturing environment is in place can real progress towards achieving an internalised curriculum be made.

It must not be forgotten that the real proof of success lies with the students' experience of the curriculum. Whether their teachers' ambitions translate into real change on the ground needs to be seen. Gauging the students' views will be the next phase of the Global Perspectives Project.

References
Bell, M (2004) *Internationalising the higher education curriculum - Do academics agree?* Available at: [http://uow.academia.edu/maureenbell/Papers/258073/Internationalising_the_Higher_Education_Curriculum_Do_Academics_Agree](http://uow.academia.edu/maureenbell/Papers/258073/Internationalising_the_Higher_Education_Curriculum_Do_Academics_Agree) (last accessed 17 April 2013)


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Investigating Academic Cultural Differences in an International Classroom

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ABSTRACT: Given the large increase in international student numbers (UKCISA, 2012) it will prove beneficial to the international educator to identify any differences in cultural perceptions and expectations of newly registered international students and UK teaching and learning expectations. Knowledge of such differences could be used to inform teaching practice which promotes a smooth cultural transition. This project aimed to measure the ‘typical’ academic culture of a new cohort of international students compared to that of their UK teacher. Several cultural differences were identified according to Hofstede’s cultural typologies (Hofstede, 1986). Students identified themselves as collectivists in a position of low power, whereas their teacher expressed individualist traits and valued a more equal distribution of power in the classroom. These findings can be used to understand how different cultural expectations between students and staff may become apparent in an international classroom.

1 Introduction

Culture can be defined as the collection of mutually agreed rules of behaviour or norms, and values which members of a culture hold in high esteem (for example, power). Hofstede (1986) and Hofstede and Bond (1988) describe culture as having five categories: power distance, uncertainty avoidance, individualism/collectivism, masculinity/femininity and long term orientations. Power distance refers to the extent to which power is perceived to be distributed equally amongst social hierarchies. Uncertainty avoidance represents a group's acceptance of uncertainty or tolerance to change. The third category of individualism versus collectivism represents the degree to which individual society members are integrated into groups or whether more personal achievements are valued. The gender category is a measure of competitive values (masculinity) over quality of life (femininity). The long term orientation category describes the extent to which a society craves deferred or immediate gratification. These notions of culture can be applied to describe many social setting including the learning and teaching cultures and the collective ‘academic culture’ of a classroom or discipline (Manikutty, Anuradha and Hansen, 2007). Accordingly, socio and academic cultures can play an important role in teaching and learning, as well as day to day classroom interactions between teaching staff and students (Ryan, 2005).

Socio and academic cultural differences exist not only across international boundaries (Hofstede, 1986), but also across academic disciplines (Becher & Trowler, 2001). For example, Jin (1992: p393) suggests that the academic culture in the UK is characterised by ‘critical evaluation, originality, academic freedom and independent thinking’ which maps to low power distance and individualism in Hofstede’s cultural dimensions. This is in stark contrast to Chinese academic culture which places great respect on academic authority which translates to a high power distance between students and teachers and a collectivist identity using the definitions of cultural dimensions discussed in Hofstede (1986). Furthermore, it could be argued that hard scientific academic cultures value different cognitive domains identified through Bloom’s Taxonomy (Bloom, 1956) compared with other subject groups at specific stages in education (Draper, 2005). For example, the pure, hard sciences often focus on problem solving and application at very early stage in education. Accordingly, such potential differences in socio and academic cultures can offer additional challenges to the difficult transition period of any student to UK Higher Education, but particularly for international students for whom the cultural changes may be particularly stark.
The point of transition from one culture to another is a time when cultural differences can play a significant part in the success of an international transition. This transition can lead to a 'culture shock' in any student who is moving between cultures which can impact on students' learning in many ways. For example, Ryan (2005) discusses 'academic shock' where international students have to quickly adapt their approach to learning as their previous approach may not entirely suit the expectations of teachers in the UK. Moreover, the approaches to teaching in the UK may be an entirely new and confusing experience for international students. Ryan (2005) also examines the differing levels of independence of learning between different academic cultures. Similarly, Wu and Hammond (2011) discuss the varying stages of cultural transition for East Asian students studying in the UK where initial language difficulties progress to academic and social 'cultural bumps' before a period of adjustment takes place. It is this period of adjustment (albeit by the students, the academic institution or their teachers) which is vital.

Given that the initial stages of education in a new cultural setting can play a significant role in the success of international student transition, and that any potential cultural differences between students, staff and the discipline at HE level can impact significantly on student outcomes, then it will prove beneficial for any educator of international students to become more aware of the differences in cultural perceptions and the expectation of their international students. Moreover, this paper argues that bridging the gap between students’ and staffs’ socio and academic cultural expectations should be done collaboratively by sharing academic cultural information, being explicit about expectations, encouraging mindfulness of such differences and raising awareness that certain 'cultural compromises' are necessary by all stakeholders. Ryan (2011) makes comment to a 'transcultural approach' where the cultural baggage and experiences of a diverse international group is utilised as an asset in an international classroom and it is this transcultural approach, combined with a desire to learn and promote mindfulness of cultural differences within any classroom, which may actually benefit all stakeholders in teaching and learning in HE.

2 The Study

This paper reports on a small scale evaluation which measured the expectations of a diverse group of international students on arrival to UK HE regarding their experiences and perceptions of approaches to learning and teaching, awareness of cultural differences with the new UK HE setting and their expectations regarding the relationship with their teacher (myself). This student data was then compared to my own expectations and perceptions of culture in the same regard and a comparison between my own and student data allowed a measurement of the extent to which my practice facilitates a smooth transition between cultures rather than a 'culture shock' for students. Furthermore, the study aims to reveal the extent to which an environment of collaborative bridging of academic cultural differences is required in an international classroom, rather than a one-way approach to bridging any perceived cultural gap between students attributes and staff expectations. It is hoped that this study will inform other Higher Education practitioners of potential cultural differences in an academic setting, highlight potential cultural compromises which can be made (and by whom) and promote a continual, culturally reflective approach to teaching and learning which is arguably the essence of a transcultural approach discussed at length in Ryan (2011).

All the students who participated in this study attend Glasgow International College, which is an international pathway college embedded within the University of Glasgow in partnership between the university and Kaplan International Colleges. The purpose of such an institution is to aid student transition into the 'foreign' UK higher educational environment by enhancing both academic and cultural preparation (in the sense of academic culture) and allowing for a period of cultural adjustment. I am a teacher of physics, maths and statistics at Glasgow International College with a background embedded wholly within UK Higher Education (UK HE).
3 Methodology

A questionnaire was developed which aimed to collect cultural information regarding approaches to learning, approaches to and expectations of teaching, student-teacher relationships and awareness of cultural differences. A version of the questionnaire, adapted for publication, is available in the Appendix to this paper. The first five questions were adapted from the revised approaches to studying inventory (Entwistle and Tait, 1994) and aimed to gain a snapshot of student learning approaches using a five point Likert scale. The next six questions were adapted from the approaches to teaching inventory (Trigwell and Prosser, 2004) but were edited to offer student facing questions relating to their expectations of a teacher and approaches to teaching. These six questions also measured responses using a five point Likert scale. The remaining twenty four questions were designed to obtain the cultural expectations of the respondents within a UK HE classroom according to the five areas of culture discussed in Hofstede (1986), Hofstede and Bond (1988) and further explained in Hofstede (2008) as well as containing elements of the student-supervisor perception rating (Moses, 1985). These twenty four questions therefore measured aspects of socio and academic culture within the classroom using a continuum scale which ranged from one extreme end of a cultural dimension to the other (e.g. individualist to collectivist).

Eighteen foundation and twenty eight pre-masters students participated in this study. I taught the foundation students for four hours per week in a mathematics module, and I taught statistics for four hours per week with the pre-masters groups. These groups included a wide range of students from different nationalities, cultures and academic cultures. It should be noted that the pre-masters group was predominantly of Chinese origin whereas the foundation group was internationally diverse.

In order to obtain an accurate snapshot of students’ initial culture, the questionnaire was issued to students in classroom sessions at an early point in their programme (the end of their second week). However, given that some students may have already had some experience of a UK education (either at school or in second language learning) the results of this initial study should be taken with appropriate caution as compromises may have already taken place. In order to have a benchmark and to inform my practice, I also completed the survey.

The student data was collected and processed according to the student groups. This allowed for a separate analysis of the younger foundation students who have most recently transitioned from their native high school system (by contrast the majority of pre-masters students have recently transitioned from their native higher education system). The student responses to each question were recorded on a discrete scale between 1 and 5 and mean responses were calculated alongside the spread in responses. These responses were then categorised (according to the related question) into Hofstede’s cultural typology. This approach allowed an overview of the typical student academic culture in a GIC classroom at the point of entry.

Any significant differences between student responses and my own were identified and used as a basis to inform the need to encourage collaborative bridging of cultural differences and facilitate a dialogue surrounding academic and cultural expectations. Furthermore, any significant differences between foundation and pre-masters groups were also identified. It is important to note that a full statistical treatment is not appropriate in this instance due to the personally evaluative nature of this study. The processed results for the foundation and pre-masters groups are recorded in Figures 1 and 2, respectively.

Due to the potential wider application of this study (beyond a personal evaluation), ethical approval was granted by the College Academic Director and Programme Leader for Science and Engineering. All students were informed of the study by a formal email and were asked
to participate. A discussion was carried out in class sessions where the purpose of the study was communicated to students and at this point, all students indicated that they were happy to participate. At this point, students were asked to sign a document agreeing to participate in the study and further agreeing that the findings of the evaluation could be used for publication either internally within Glasgow International College, or externally where appropriate.

4 Results

Foundation and pre-master students' mean responses were recorded alongside the personal evaluation. The standard deviation of responses was recorded to give insight into the spread of the data. A notable difference between student and teacher responses was recorded if responses differed by more than one standard deviation or if responses spanned different extremes of the spectrum. Figures 1 and 2 illustrate only the notable differences between students and teacher for foundation and pre-masters students, respectively. The text at the base of each bar in Figures 1 and 2 indicate the academic or cultural information which a response of '1' indicates. For example, the first bar on Figure 1 shows a teacher response of '1' indicating individualism in comparison to an average student response of around '3' indicating a comparatively collectivist culture.

Figure 1: Highlighting the notable differences between teacher (red) and foundation student (blue) responses to the questionnaire given in the appendix.

4.1 Commentary on Foundation Data (Figure 1)

The foundation student responses to the questions related to learning show significant notable differences compared to my own in questions 1, 2 and 5. The main trend suggests that my students show collectivist traits compared to my individualist values. When focussing on the approaches to learning identified using these responses (based on a similar, but more in depth analysis presented in Mattick, Dennis and Bligh (2004)), the student responses tend towards the middle of the spectrum between surface and deep approaches, whereas my own responses indicate an expectation of a deep approach to learning. This is in agreement
with the second hypothesis presented in Manikutty, Anuradha and Hansen (2007) which attempts to correlate collectivism and surface approaches to learning, and suggests that my foundation students have a tendency towards surface and strategic approaches to learning. This may have an impact when I utilise problem solving and application as a tool for teaching and learning as these require deeper learning to be most successful.

Turning to the questions related to teaching, questions 7, 9, 10 and 11 have elicited notably different responses between students and myself. Interestingly, the difference in responses is identifiable in only the questions relating to power distance (PD) and collectivism/individualism. My collectivist students have placed themselves in a position of low power, but my own responses indicate individualism and a more equal distribution of power. This is a significant discovery as collectivist students are more likely to focus on the class performance or average grade, comparing their grades to their friend's, valuing the information their friend gave them and so on. On the contrary, my individualist approach values, encourages and requires independence. Furthermore, the student responses suggest a slight teacher focussed approach in previous classroom experiences since the PD which students expect suggests that they feel the teacher is in control of their learning. However, the low PD which I perceive implies that teaching and learning have more equal importance and that there is greater onus on the student to control their learning (student focussed). This could easily be perceived as a lack of independence and a lack of motivation to learn deeply to a teacher who is not culturally reflective, which could easily impact on the teaching and learning for that cohort. Moreover, Manikutty, Anuradha and Hansen (2007) also suggests that students who display high PD may tend towards surface learning, and combining that with the collectivist traits, students may tend away from a deep approach towards learning.

Finally, the culture based questions demonstrate several notable differences (namely questions 12, 18, 19, 24, 26, 28, 30, 32 and 35). Responses suggest that students have tended towards a small amount of PD (in contrast to the learning and teaching questions above), as have I. Consequently, it seems that the large PD only really manifests when students consider the questions relating to teaching focus on classroom aspects of academic culture such as providing notes, answering questions and so on.

Overall, a number of responses may indicate potential 'cultural clashes' or misunderstandings. The most notable trend is that students tended towards collectivism and higher PD compared to my individualism. Additionally, my responses showed lower uncertainty avoidance (e.g. learning through mistakes), and a masculine dimension (e.g. competitiveness and an intense assessment regime). This highlights some important cultural differences in my international classroom.

4.2 Commentary on Pre-Masters Data (Figure 2)

Firstly, the reader is reminded of the hypothesised cultural homogeneity of the pre-masters group (the majority of students were of Chinese origin). This allows some degree of comparison with Hofstede's cultural typology of China (http://geert-hofstede.com/china.html). Interestingly, the responses of the pre-masters and the foundation students show a similar trend for the questions related to learning; questions 1 and 5 showing notable differences between the student voice and my own. As a result, similar conclusions can be drawn here: the student body is a collectivist culture. This matches very well with Hofstede's own findings for China. Furthermore, the approach to learning which I expect is deeper on the spectrum than students indicate and this again could have an impact when I utilise problem solving and application as a learning tool.

When considering the questions related to teaching, the pre-masters student responses are all closer to my own response than the foundation responses, and only questions 7, 10 and
11 are identified as having notable differences. Overall, the responses indicate that these students are collectivist in a position of low power, compared to my individualism and more equal distribution of power. The differences between students and teacher are smaller for the pre-masters students when compared to the foundation students; however, this may still be interpreted as a lack of independence in learning, and a tendency away from a deep approach to learning. This is a vital finding as it is one of the key learning outcomes which programmes at GIC are designed to develop.

![Graph showing differences between teaching approaches and cultural traits](image)

**Figure 2: Notable Differences: PM and Teacher - a comparison between teacher (red) and pre-masters student (blue) responses to the questionnaire.**

It is worthy to note that the pre-masters data also highlights several areas of notable cultural differences (namely, questions 12, 13, 18, 19, 24, 26, 29, 30, 32 and 35). Again, students have tended to respond with collectivist traits. In comparison, my own responses are individualist and more masculine. More subtly, student PD appears higher. This shows some agreement with Hofstede’s cultural typology for China ([http://geert-hofstede.com/china.html](http://geert-hofstede.com/china.html)) which suggests a greater PD in China compared to the UK and a more collectivist culture.

### 4.3 Comparing Between Groups

Whilst the majority of conclusions drawn for the foundation group apply also to the pre-masters group, the responses to cultural questions 1, 13 and 28 have highlighted significant differences between the two groups (with around 95% confidence). In each case, the foundation students have lower UA, more collectivism and a greater degree of surface learning. Again, this is a significant result as it suggests a more directed approach should be made when dealing with the younger foundation students. Additionally, the foundation students showed more significant differences with their teacher in terms of academic culture (or teaching and learning) compared to the pre-masters group. This could further reinforce the need to promote cultural awareness and mindfulness of academic cultural difference more so when dealing with younger undergraduate and foundation level students compared to older postgraduate students.
5 Conclusions and Reflections

This evaluation has revealed cultural differences between myself and my students and has helped me determine the potential impact this may have on student learning, and my own teaching. The key findings are:

My students are collectivists and place themselves in a position of low power. As a result, my students show lower independence in their learning than I expect, they place me (their teacher) in a position of high authority and they are teacher centred placing the responsibility on me for their learning.

My students tend slightly towards surface or strategic approaches to learning (foundation students more so), whereas I value a deeper approach. This could have an impact when I utilise higher levels of Bloom’s Taxonomy in my teaching; particularly application and problem solving.

This study promotes transcultural awareness on my part; however my task is to foster a similar awareness throughout my classroom and institution (i.e. a two way process). As a result, I should encourage this awareness and facilitate collaborative bridging so that the transition from native to new academic cultures is as smooth as possible. This transcultural approach combined with a desire to promote learning of cultural differences within my classroom will aid all stakeholders in teaching and learning.

In order to develop collaborative bridging, I should design classroom activities which nurture interactivity between students and teachers, promote critical application and allow students to experiment with problem solving. This will allow students to become more aware of my discipline's academic culture and my more neutral position on the power distance scale. Moreover, I should encourage debate within groups, encourage individuals to challenge theories and promote an understanding of the individualist nature of UK academic culture. By understanding that there are different cultural dimensions within an international classroom and by having a greater understanding of exactly what those differences are, I will understand the reactions and responses of my students to a greater degree. This will allow me to have more appropriate and explicit dialogue with students when required. As a result of this evaluation I can help students become more aware of my expectations, the expectations of their future teachers in UK HE and the academic culture of their chosen discipline. This awareness is not only applicable to my discipline of teaching international students in a pathway college, but could be equally applicable to any student in transition to UK HE.

More generally, these findings highlight that students are not a homogeneous group of ‘oven-ready’ learners. Socio and academic cultural differences, and more general differences in expectations of teaching and learning between students and staff exist and can impact on several key indicators of successful student learning. By highlighting the sharing of cultural information, mindfulness of cultural differences and promoting certain ‘cultural compromises’ (as opposed to cultural clashes) this report highlight that in spite of such differences, a transcultural approach can foster more engaging, culturally reflective international classrooms which can benefit student outcomes and the teaching experience therein.

References


Appendix: Student Survey for Evaluation

Note: the questionnaire presented here has been condensed somewhat for the purposes of publication. The full survey can be requested from the author.
<table>
<thead>
<tr>
<th>Question</th>
<th>Response</th>
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<tbody>
<tr>
<td>1 I tend to take anything I have been taught at face value without</td>
<td></td>
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<tr>
<td>questioning it</td>
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<tr>
<td>2 When I am taught new things I have to relate them to real life contexts</td>
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<tr>
<td>to understand them</td>
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<td>3 I generally put in around 8 to 10 hours of study per week per module</td>
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<td>4 It is important for me to see why something is true, rather than just</td>
<td></td>
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<td>accepting that it is true</td>
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<tr>
<td>5 If I have not understood something when studying, I will try a different</td>
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<tr>
<td>method of study</td>
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<tr>
<td>6 My teacher encourages me to think more independently than I had to in</td>
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<tr>
<td>my own country</td>
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<tr>
<td>7 If I only learn the information given in lectures then I can get a</td>
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<tr>
<td>high grade</td>
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<tr>
<td>8 I expect the teacher to know the answers to any questions I have about</td>
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<tr>
<td>the subject</td>
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<tr>
<td>9 It is the teachers responsibility to provide me with good notes/resources</td>
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<tr>
<td>for this subject</td>
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<tr>
<td>10 It is the teacher’s responsibility to set homework and ensure it has been</td>
<td></td>
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<tr>
<td>completed satisfactorily</td>
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<tr>
<td>11 It is the teachers responsibility to teach me everything necessary to pass</td>
<td></td>
</tr>
<tr>
<td>the assessments</td>
<td></td>
</tr>
<tr>
<td>12 Relationships with teachers and LSTs are purely professional and</td>
<td>Close personal relationships are essential for successful study</td>
</tr>
<tr>
<td>personal matters should not intrude</td>
<td></td>
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<tr>
<td>13 The teacher/LST should insist on seeing drafts of students work in</td>
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<tr>
<td>order to review them</td>
<td></td>
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<tr>
<td>14 It is the teacher’s responsibility to teach me everything necessary</td>
<td></td>
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<tr>
<td>to pass the assessments</td>
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<tr>
<td>15 It is the teacher’s responsibility to choose the topic of any project</td>
<td></td>
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<tr>
<td>or essay</td>
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<tr>
<td>16 It is the teacher’s responsibility to meet my needs, even if the class</td>
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<tr>
<td>is very diverse and the students all have different needs</td>
<td></td>
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<tr>
<td>17 The teacher should be available after class to answer any questions</td>
<td>Students should not expect teachers to be available after class and may have</td>
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<td>to wait for an appointment (if at all)</td>
<td></td>
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<tr>
<td>18 The teacher should take into consideration any personal circumstances</td>
<td>Students personal circumstances should not be cited as reasons for poor</td>
</tr>
<tr>
<td>of students which may affect performance</td>
<td></td>
</tr>
<tr>
<td>19 If a teacher asks a really hard question in class, and no one actually</td>
<td>If a teacher asks a really hard question in class, and no one knows the answer then the students should make sure they study the topic as homework</td>
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<tr>
<td>knows the answer then the question is too hard</td>
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<tr>
<td>20 It is the teacher’s responsibility to set homework and ensure it has</td>
<td>Students should decide on their own topics of study at home, and it is the students’ responsibility to keep up with</td>
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<td>been completed</td>
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<tr>
<td>satisfactorily</td>
<td>the teacher.</td>
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<tr>
<td>21</td>
<td>It is rude to question the teacher during class</td>
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<td>22</td>
<td>I think students should be dependent on teachers</td>
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<tr>
<td>23</td>
<td>Teachers should initiate all communication</td>
</tr>
<tr>
<td>24</td>
<td>I am happy to guess if I don't know the answer to a question which the teacher asks</td>
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<tr>
<td>25</td>
<td>Teachers should make sure students know the right answers</td>
</tr>
<tr>
<td>26</td>
<td>Teachers are supposed to know all the answers</td>
</tr>
<tr>
<td>27</td>
<td>If I misunderstand something during the class I should ask the teacher to explain</td>
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<tr>
<td>28</td>
<td>The purpose of learning is to learn how to learn</td>
</tr>
<tr>
<td>29</td>
<td>Qualifications increase your self-respect</td>
</tr>
<tr>
<td>30</td>
<td>Good teachers get good results by any method</td>
</tr>
<tr>
<td>31</td>
<td>I tend to over-rate my own performance</td>
</tr>
<tr>
<td>32</td>
<td>Failing is a disaster</td>
</tr>
<tr>
<td>33</td>
<td>It is OK for me to communicate with others during class as long as I don't interrupt the teacher (e.g. answering a phone call, emails or notes to other students)</td>
</tr>
<tr>
<td>34</td>
<td>It is better not to go to class if I think I cannot participate</td>
</tr>
<tr>
<td>35</td>
<td>If I fall asleep during a lecture then the teacher can wake me up and punish me (which will disturb the class)</td>
</tr>
</tbody>
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Internationalising the curriculum - partnership in action: Scotland and South Africa

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ABSTRACT: This paper considers the absence of an agreed definition of work based learning. It explores this in relation to employer/ HEI partnerships acknowledging that there is a perceived difficulty with Higher Education developing partnerships with industry.

This is explored in the context of a programme involving the Scottish Centre for Work Based Learning at Glasgow Caledonian University (GCU) with Transnet Freight Rail and the University of Johannesburg in the Republic of South Africa.

The paper considers the institutional drivers for this project in relation to GCU's strategic aim of internationalizing the curriculum and increase the number of international students undertaking GCU programmes and the more general goal of increasing industry partnerships as part of a programme of establishing what GCU terms 'Academies'.

Defining 'work based learning'
'Work based learning' (WBL) has been a subject of intense discussion since the 1990s. Debates cover a range of issues including the appropriateness of subject based content and 'how to' literature on putting WBL into practice. What is often unacknowledged, however, is that different authors are often using the term to refer to quite different experiences. Therefore, although it may appear that there is a sizeable body of knowledge on the subject of WBL, the diverse range of understandings of the concept mean that the same thing is not under discussion, which is a barrier to a shared understanding of pedagogy, policy and practice. The terms 'work based learning', 'workplace learning' and 'work related learning' can also, refer to similar or distinct concepts, depending upon the author's definition.

Some authors do, however, at least highlight that WBL is a contested concept. For example, Lee et al. (2004: 4) acknowledge "There is no singular definition or one unified approach to what 'workplace learning' is, what it should be, or who it is/should be for..." and Brennan et al. (2006: 23) "Much of the confusion and contradiction in discussions about workplace learning and higher education may lie in the fact that people are often talking about quite different things.". It is then, somewhat surprising that there has not been a stronger 'push' for clarity for these terms. Rather than seeking an agreed definition which is descriptive, covering WBL in its many varieties, authors are instead prescriptive, defining how the term will be used for the purposes of a particular discourse.

Lee et al. (2004) (drawing on Boud and Garrick, 1999) argue that the reasons for the multiple definitions of WBL are that first, there is an issue of competing interests and values; and secondly, as workplace learning has been approached, investigated and theorised from different disciplinary backgrounds, it has generated a multitude of different lenses through which workplace learning and the various concepts embodied within it, are viewed and understood. Lee et al. (2004) argue if taken together, (citing Candy and Matthews) "they have generated a bewildering array of models. (p. 15)"

It is important therefore important to clarify what is meant by WBL for Glasgow Caledonian University (GCU). As intimated above, there are a range of competing definitions, often overlapping with each other. For example, WBL can be used as a broad term to encompass a wide range of learning episodes which take place in the workplace or it can be used to refer to a specific sub-set of programmes. Unsurprisingly WBL as used in GCU refers to a
specific sub-set of programmes which relate to Higher Education (HE), but further definition is necessary.

Although WBL can be a wide ranging concept as noted some insights can, however, assist in narrowing a particular meaning. Boud and Solomon (2001) are viewed by many as offering a seminal definition of WBL as applied to HE. They define WBL as university programmes that bring together universities and work organisations to create new learning opportunities in workplaces. These programmes, they claim, should meet the needs of the learners, contribute to the longer-term development of the organisation and be formal courses accredited by the university.

These programmes Boud and Solomon (2001: 4-7) contend have six key features. For the purposes of this paper the following key features are pertinent. A partnership is established between an external organisation and a higher education institution (HEI), which fosters learning and provides infrastructure to support learning. The learners are the employees of the external organisation. Rather than being framed by the disciplinary or professional curriculum of HE, the programme of learning derives from the needs of the workplace - that is the employer and the learner.

While much of this is uncontroversial the relationship between disciplinary knowledge and knowledge gained in the workplace is complex. For example, the extent to which assessment should or could be based on an actual work place artefact, or a more 'academic' report based on practice invites consideration of the role of academic knowledge framing the learning.

Other authors in an effort to encompass the breadth of practice and the associated terminology without being too precise about the tensions suggested above have attempted more comprehensive definitions that try to highlight the salient features of WBL as practiced in HE. For example, Gallacher and Reeve (2002) provide a fairly comprehensive definition which identifies four facets that they believe are common to WBL as undertaken by HE institutions: Partnership, Flexibility, Relevance and Accreditation.

**Partnership**
The first of these, 'Partnership' is perhaps the aspect of WBL that uniquely sets it aside from other forms of flexible learning in HE. It is certainly viewed as a defining feature by Smith and Betts (2000). They argue that with the development of partnership, employers, students and educational providers need to move beyond a model where learning is located in the workplace to 'learning through the experience of work', creating space for an understanding of the role of HE knowledge in transforming that workplace learning.

Partnership implies that another important aspect of WBL is negotiation (Brennan and Little, 1996). They note that a distinguishing feature of WBL is the part that negotiation between stakeholders plays in identifying achievable learning outcomes, which are meaningful and challenging to the individual, relevant to the employer and have academic credibility. Negotiation, however, also brings into sharp focus the role of power relations within the stakeholder relationship. Could competing agendas become a barrier to working relationships in WBL partnership programmes?

In 2002, Gallacher and Reeve see partnership as largely benign, seeking to minimise the competing needs of the employing organisation and HE by smoothing out differences in power, for example, addressing HE’s potential loss of control over the curriculum in order to enhance the relevance of the programme to workplace performance. Gallacher and Reeve note, however, that the "continuation of different agendas may lead ... to the emergence of a 'politics of curriculum'" (2007: 4). This suggests that whilst the concept of partnership has support, there may be some concerns regarding implementing the notion in practice.
Smith and Betts (2000) argue much in the same vein as Gallacher and Reeve (2002) that partnership is an important dimension in the development of 'learning organisations' and of 'lifelong learning' in higher education and that partnerships will become less hierarchical and more democratic in future.

Indeed for Smith and Betts (2000), and Maclaren and Marshall (1998), the concept of 'active partnership' is at the heart of WBL as both the driver and the definer. Maclaren and Marshall argue that to be truly effective WBL requires the active participation of facilitators from both spheres of academia and the workplace and that the nature and the quality of the partnership depends on the level of involvement of each of these partners and the interaction between them.

Garnett (2001) and Walsh (2007) add their voices in support of partnership seeing it as a vehicle for a level of redistribution of power over the content of the curriculum from the traditional relationships between business and HEIs: universities may lose some control of the curriculum, but they can gain valuable knowledge of the changing circumstances within business, therefore updating their knowledge.

However, not all academics in this field are so sanguine. Reeve and Gallacher (2005) raise a number of issues. Firstly, they argue that WBL partnerships are limited and marginal and although there is some evidence of strong and fully integrated partnerships, they are unlikely to become widespread arguing, among other things, that it is not clear how HEIs should work with employers and that building effective partnerships is difficult and time consuming. They cite the resource intensive nature of partnership negotiations, for example.

At a more profound level they argue that differences in culture and priorities exist between employers and universities, a position supported by the CBI (2008). This refers to the employer's need to hit targets and a lack of interest in reflection and analysis and as a consequence a focus on knowledge which is seen as immediately relevant.

Therefore, although there are authors who espouse the need for active partnerships for WBL, Reeve and Gallacher's research would suggest a number of practical issues exist, which may make them unworkable. The difficulty with this position is the paucity of research undertaken regarding the effectiveness of HE programmes specifically run in partnership with employers. For example Reeve and Gallacher rely on one study in a manufacturing company as the basis for their conclusions on culture.

By contrast Nixon et al. (2006) suggest that strategies can be developed which cross the cultural bridge between learning and work. That is not to suggest that one model would suit all; different employers may want different levels of engagement in design and delivery. However, a number of models could be developed to reflect levels of engagement, which could be modified to suit the needs of a partnership. Further, the practical problems and differences in culture and priorities identified may be due to a lack of understanding and experience, which could be overcome in time. For example, whilst Brennan et al. (2006) also note that partnership programmes have yet to achieve widespread take-up, they have a more positive outlook for their future, suggesting they have the potential to be a prime vehicle for workforce development. They suggest that brokerage may create permeability in the boundaries between HE and work, to enable WBL to develop more easily and reduce potential for confusion, duplication of effort and take account of diversity of current practice. This may in part address some of the concerns raised by Reeve and Gallacher (2005).

Finally in relation to partnerships it is necessary to discuss financial arrangements. Boud and Solomon, among others (for example, Smith and Betts, 2000), mention WBL partnerships as 'sources of income' for the university. This could, however, turn a 'partnership' into a
'contractor-client' relationship, rather than meaning a pursuit of common goals. This is something that such partnerships have been attempting to overcome:

"Ball writing about the need for an expanded and more diverse system of higher education in the UK, referred to a successful system resting on a true partnership between providers and employers, rather than a contractor-supplier relationship' (Ball, 1990, para 1.21)" (Brennan and Little 1996: 2).

Although it is unavoidable that WBL will be viewed as an income generating activity for universities, if partnerships were reduced to this aspect it could limit the added value of knowledge exchange. As intimated earlier, there is an element of power in the partnership relationship. The employing organisation requires the content of learning programmes to fit their needs, will usually be paying the fees and will decide whether or not to continue the relationship with the university. The university, as the accrediting body, will have to ensure that the knowledge and skills acquired through undertaking a WBL programme meets the requirements for the exiting award. For as Boud and Solomon (2001) argue, while the learning should be of benefit to the organisation, it must be accepted by the educational institution, if a formal qualification is to be awarded.

Harvey (2007) argues that whilst students and employers have the power of customers in the 'new higher education' environment, and so are able to make decisions about which HEI can provide the most appropriate learning opportunities, the recognition that knowledge can be gained through workplace practices has not yet significantly increased employers' power within universities. This is an issue that needs to be resolved as universities are increasingly encouraged to find alternative sources of income as government funding is reduced.

It would appear, as Edmond et al. (2007:179) argue the notions of "employer engagement" and "work-based learning" remain problematic and under-theorised. It is too early to make generalised statements regarding employer engagement and the level of involvement in partnership programmes. It would seem unlikely that there can be a single model devised that meets everyone's requirements. This does not negate the possibility, however, of some flexible guiding principles being developed to form the bases of negotiation. Looking at some partnerships in more depth may shed some light on employers' views and academics understanding. The following consideration of the partnership between the Scottish Centre for Work Based Learning at GCU and two South African partners will, hopefully contribute to that elucidation.

**Drivers for the programme**

For GCU there were two key drivers. The first which has been explored in the first section of this paper is work based learning and in particular work based learning partnerships. We have noted the difficulty in arriving at a shared understanding of both the meaning of 'work based learning' and an agreement on whether partnership between Higher Education and the Academy is possible, given the critique of partnership as offered by authors like Reeve and Gallacher.

However, GCU developed a workable definition ironically enough based on that offered by Gallacher and Reeve (2002). In GCU, Work Based Learning programmes are based on partnership, flexibility, relevance and accreditation. As work based learning has developed in GCU it has continued to be based on academic disciplinary knowledge used to frame, analyse and solve work based problems within a flexible curriculum supported by appropriately applied pedagogies, principally reflective practice and communities of practice.

The Centre had developed a range of partnerships across the public, private and to a limited extent third sector, but with the exception of the private sector where a global company engaged in a Masters programme with some minimal changes to content that would
otherwise have been offered to UK organisations, there was little experience or indeed aspiration to develop international work based partnerships.

The University did, however, have a very clear strategy for internationalising. 'Internationalising' however is a concept at least, and probably more, contested than work based learning. It is described positively in an OECD report by Henard et al (2012) as comprising two key elements. The first is internationalisation at home, which means integrating intercultural and international elements into the curriculum with a view to helping students imbibing without having to leave their home country.

The other form of internationalisation referred to in the report is what is described as emerging transnational education which is manifest through campuses based in other countries, joint programmes and distance learning. The report as you might imagine focuses on the benefits of internationalisation, and argues that "Today, internationalisation functions as a two way street" (p8)

Critics would argue that given the target of many of the HE institutions, developing countries, the central objective of the advanced economies should in fact be one way. It should primarily function as a conduit for knowledge transfer with a view to supporting development even if that is to the financial detriment of the donor institutions. In fact according to Langthaler (2010) educational globalisation has led to growing disparities between rich and poor nations.

There are those who would see, as Kreber (2007:4) argues:

"Although until the 1990s internationalization in higher education was largely understood to be a cooperative effort with its rationale based primarily on political, cultural, and academic arguments, many observers today feel that internationalization has become increasingly economically motivated."

Others would challenge the view that until 1990s approaches to internationalisation could be viewed so altruistically and while economic interest may have been less obvious, cultural imperialism was not. According to Timothy Richard, a British missionary, who complained in 1911 that the newly established modern colleges in China were so Western that they made students seem like foreigners in their own land, because patterns of thought were not in touch with those prevalent in China (Davin, 1987). This is an observation that must have a curious resonance for some Chinese students in British universities seeking precisely opposite of an authentic British experience.

"... participants were very critical when they found that they studied in classes with nearly all Chinese students, lived in accommodation with other Chinese and ended up socializing with the same groups. One female graduate commented that her English had got worse since she had lived in Britain..." (Philo 2007:19)

One of the newer aspects of contemporary forms of internationalisation has been the phenomenon of Western Universities not merely receiving students, but in a fashion similar to modern colleges in early 20th Century China actually physically establishing a presence in other countries. A particular target has been the new BRIC group of economies as being particularly attractive since there is an obvious need for knowledge transfer coupled with a 'market' of a new middle class wealthy enough to pay the fees that the kudos of a British degree can extract. There are now 200 overseas campuses around the world according to Lawton and Katsomitos (2012).

Glasgow Caledonian has followed the pattern of Universities both in seeking to attract foreign students to programmes in the UK and to open campuses in overseas locations.
The first three strategic outcomes of the GCU 2010-2015 internationalisation strategy are:

“to maintain a top 10 position in the ISB survey for international students and a top 3 position for Scotland

to more than double the number of international students studying at GCU
to more than double income from international student recruitment, research and knowledge transfer activity” (p2)

and their strategic approaches do indeed include a:

"focus on the geographical regions of India, China, Europe, Middle East, North & South America for strategic partnerships“ (p1)

The University’s strategy is principally about bringing University students to its two British campuses, in Glasgow and London although it is perhaps not obvious how the London campus can contribute to the "the process of integrating an international, intercultural or global dimension into the purpose, functions or delivery of higher education" (p1) since by definition integration with the main student and staff community is limited, leaving it open to the kind of criticism levelled by Philo. However, the Glasgow Campus does increase the possibility of internationalisation affecting both the visiting students and the predominantly locally based student population as well as the staff.

To a considerable extent the partnership with TFR did not fit existing patterns of internationalisation as outlined in the GCU strategy. Firstly, South Africa is not within the target list of countries identified in the strategy document, despite the similarities in the need for development post apartheid.

Secondly, the nature of the programme meant that individuals were not paying for the programme; it was a corporate railway company that funded the programme and consequently although provision would still be more expensive than local provision because of the costs of staff travel, costs were minimal compared to that of hundreds of South African students travelling to Scotland, even for limited periods of time.

Thirdly, the mode of delivery was new, at least in terms of international programmes. It was principally an on-line programme with some initial face to face delivery by GCU staff who travelled to RSA to provide induction and some initial face to face teaching.

The strategy here was less deliberate than emerging with an existing partner of GCU, the Institution of Railway Operators (IRO) introducing the main South African Partner Transnet Freight Rail (TFR) to the programme that IRO and GCU delivered in partnership to a wide range of Train and Freight Operating Companies in the UK and the Republic of Ireland; the BSc in Railway Operations Management. In 2008 after initial meetings in Scotland where key TFR personnel visited, there was a long period of negotiation before agreement was reached.

TFR already had a University partner in South Africa, the University of Johannesburg. It is a comparatively new university which emerged from a merger of four institutions. After the 1994 democratic election South Africa sought to rid the education system of the apartheid legacy. The University of Johannesburg is a product of that commitment. It was formed through the incorporation of the Soweto and East Rand Campuses of Vista University into Rand Afrikaans University (RAU); and the merger of RAU with the Technikon of Witwatersrand (TWR) in 2005. While the University of Johannesburg is an important partner, their participation was conditional on the desire of TFR to source a programme that could
deliver the skills and content the TFR leadership believed necessary to advance in an increasingly competitive and politically demanding environment.

TFR is the largest division of Transnet, an integrated freight transport company fully owned by the South African government, that operates as a corporate entity aimed at supporting the country's freight logistics network. TFR is a heavy haul freight rail company that specialises in the transportation of freight. It has approximately 25,000 employees, who are spread throughout the country. It maintains an extensive rail network across South Africa that connects with other rail networks in the sub-Saharan region, with its rail infrastructure representing about 80% of Africa's total.

What were the drivers in TFR's decision? Firstly, South Africa is looking to economic stimulus to help growth in the face of the current global economic crisis. Transnet is at the heart of a major expansion of infrastructure in South Africa which has intensified with the announcement of President Jacob Zuma, in February 2012, which put Transnet at the centre of government's drive to increase economic growth through infrastructure development. According to Transnet's eponymous magazine (2012) over the next seven years the company plans to invest R300 billion in expanding South Africa's railways, ports and pipelines. Of course, skills development is an intrinsic part of this strategy.

Nevertheless the choice of a Scottish University may have seemed a strange one and it is all the more unusual given that the period when discussions began, the number of foreign programmes offered in South Africa decreased because of strict new government regulations and accreditation processes introduced at that time.

According to Altbach and Knight (2007)

"Only a few foreign institutions have branch campuses, including Bond and Monash from Australia, De Montfort (United Kingdom), and the Netherlands Business School. Three foreign institutions are leaving because of accreditation issues related to a recent review of all MBA programs. Monash will remain (it does not offer an MBA program), as will the British-based Henley Management College, primarily a distance provider." (p290)

The reason is that like the Henley Management College distance provision was less prone to difficulties emanating from country based regulation although GCU provision had all to be accredited against the standards of the South African Qualifications Agency. The principal reason, however, was that the programme GCU offered fitted the areas of skill and knowledge that TFR believed were necessary to improve the Freight Rail infrastructure in South Africa and as intimated above a senior manager of TFR had been introduced in 2008, very early in the process, to the nature of delivery and content of the programme.

In addition it allowed TFR to offer its staff a valued, portable qualification, that would have been outside the reach of the vast majority of TFR employees. These are not the emerging middle classes of the BRIC countries.

**Conclusion**

There has always been different meanings and different purposes ascribed to work based learning, but in GCU there has always been a strong current of seeing work based learning as a very effective way of widening access to Higher Education. This is because those in work very often find it difficult or impossible to undertake study that is either very expensive or very time consuming or both. By working in partnership with employing organisations and we believe that we have shown that partnerships are possible with progressive employers, then relevant, flexible, accredited programmes can be delivered.
The partnership with TFR and the University of Johannesburg did not develop as part of a deliberate internationalising strategy. However, it did emerge as part of the Scottish Centre for Work Based Learning's desire to make Higher Education available to people at work, whether that be in Selkirk, or Soweto and in this we hope we have helped share the liberation that Higher Education can bring.

References


Demystifying the Prejudice about International Students: A Matter of Module Design?

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ABSTRACT: Increased numbers of students from China have led academics to study their learning styles and performance. Based on a literature review, this paper investigates an approach to learning suitable for students from varied backgrounds. Using descriptive statistics from three deliveries and qualitative data collected during one of these deliveries of an undergraduate module at a UK Business School, the pedagogy and design may explain why Chinese students achieved high marks in some assessments, contrary to perceptions of them as passive learners. The findings reveal that the staged, collaborative and cumulative learning involved benefited them and they achieved marks similar to home students and sometimes higher than home and European students. However, unexpectedly, some home students objected to the design and preferred discrete blocks of learning and assessment rather than cumulative learning and assessment. Implications for module design to promote graduate attributes in students from diverse educational backgrounds are discussed.

1 Introduction
This paper describes the possible implications for innovative teaching, module design and assessment which derive from a case study of the module 'Strategic Management' delivered to a group consisting of home (UK) students, EU students, and international students from China in a UK Business School. While there are considerable numbers of international students in UK universities, attention has been drawn to Chinese students, who form the largest group of international non-EU students in UK higher education: there were 67,325 students from China in 2010/11, up by 18.1% from 2009/10 (HESA 2012). An inability to achieve deep learning, critically analyse information, and demonstrate the application of knowledge to problems and tasks have been highlighted by some in the literature as prominent deficits of Chinese students (for example, Edwards and Ran 2006; Jones 2005; Turner 2006). However, for both home students and overseas students, expectations in higher education include concepts and skills like independent learning, reflective learning, lifelong learning, metacognitive awareness of deep and surface learning, constructivist conceptions of teaching and learning, creativity, synthesising information from a variety of sources, and group-working among others (Robson and Turner 2007; Barrie 2006). Such expected graduate attributes only underline the need to actively address the gap in individual learning styles or design modules to accommodate these differing learning styles while attaining learning outcomes. This gap has to be placed in the perspective that more and more international students attend UK universities (HESA 2012), contributing to vital income generation and the benefits of internationalisation (Tarry 2011, 71-72).

This paper shows how the need to cater for students with a variety of backgrounds led to the redesign of a module, while at the same time incorporating features that stimulated the development of transferable academic skills. The design of the module was inspired by a search for an alternative to existing views on how to deal with different culture-based learning styles. Questions like why Chinese students performed better than home and EU students in the coursework in the redesigned module, and why Chinese students performed less well than home and EU students in the final (more traditional) examination could perhaps be answered. If this was the case in this study, could the results show that Chinese students can perform better when engaged in staged and collaborative learning embedded in the redesign of the module? Did the 'Strategic Management' module results challenge some value-laden western conceptions about how students should learn? What were the perceptions of the Chinese, EU and home students of the teaching and assessments on the module? Ultimately, what implications might this case study have for teaching methods and module design in a university with an international student population?

2 Background and Literature Review
Early literature on learning styles provided a view of Chinese approaches to learning as being inadequate for study in western universities, and may have focused on the international student as the 'other'. Some researchers suggest that Chinese learners' approaches to learning are simply inadequate for academic success, a deficit that must be corrected (Ballard and Clanchy 1991a, b). Therefore, international students were expected to assimilate. However, academic success of Chinese students in western universities then gave rise to literature on this paradox (e.g. Kember and Gow 1991; Kember 2000).

A second way to explain the gap in learning styles is by viewing it as inherent to culture. Cortazzi and Jin (1997) argue that despite these different cultures of learning, teachers and students should attempt a process of 'cultural synergy' in which they can learn from each other about their cultures. A 'cultural pedagogy' that accommodates students from different cultures was recommended. The advantages and disadvantages of this pedagogy are also discussed in the literature (for example, Nguyen, Terlouw and Pilot 2006).

A third approach to the gap in learning styles is found in the teaching method as module design. Such an approach follows Zhou et al. (2008, 72) who recommend 'reciprocal adaptations' in pedagogy on the part of the learners and teachers; that call is similar to the one by Campbell and Li (2008, 394). In the perspective of this approach, academic staff who teach and are module designers are best-placed to deal with these aspects of learning. Rather than just telling students how to study, a teaching method that leads students through a more fruitful process of studying may lead to self-development and continued academic success (Watkins 2000; Wang and Byram 2011). This stance is mostly followed by Wong (2004, 165) who sees the Asian international students adapting to the learning styles at an Australian university. In addition, Kingston and Forland (2008, 219) also point out that the teaching practice should benefit home and international students at the same time.

This idea of the international university and curriculum is now prominent, and this means planning teaching and learning that is accessible to all students. This is based to an extent on the literature looking at the idea of global social justice and developing an inclusive curriculum for all students (Otten 2003). Some of this literature is aspirational and general, and some is both visionary and pragmatic, with examples of good practice in teaching (for instance, Enslin and Hedge 2008; Haigh 2002). There is also a host of literature providing advice, hints and toolkits for teaching international and home students together (e.g. Carroll and Ryan 2005; Higher Education Academy resources 2013; Burnapp 2007).

However, while advice abounds, concrete examples of the practice of teaching and learning in the internationalised classroom are lacking in the literature. At the classroom and course level, Back et al. (1996, in Haigh 2002, 56-57) briefly outline courses where groupwork in teams using the Internet was involved and where students were assessed by their contributions to a teleconference. Another course required students to work in discussion teams to critically analyse media reports of African events (Aspaas 1998 in Haigh 2002, 58).

A similar type of pedagogical design is described by Johnston and Olekans (2002) who outline the internet based delivery and assessment of 'Critical and Analytical Learning in Macroeconomics' to almost 1200 students in an Australian university, one third of whom were non-native speakers. For the same project, Jones (2005, 339) concluded that

the study confirmed that, although cultural and linguistic differences are important, the way in which a subject and assessment task is presented to students has a profound impact on learning.

Spronken-Smith and Walker (2010) describe three case studies of modules in which an inquiry-based and student-centred approach is used to develop students' research skills. However, we are given an overview of the case-studies only.

Given the lack of evidence, this article aims to explore how a module can be designed and delivered to allow all students the opportunity to become independent learners, to develop an inquisitive mind, and to perform well academically. However, with respect to the analysis our initial focus is on the comparative performance between home and Chinese students.

3 Methodology for Case Study
To that purpose, an unexpected opportunity for a case study using a qualitative research approach emerged. A module for a third-year undergraduate programme contained a wide variety of learning activities for students from a wide variety of backgrounds in an integrated mode; a non-traditional method of delivery was used, but there was a final conventional examination.

3.1 Module 'Strategic Management'

One of the three learning objectives in this module was: ‘to acquire knowledge and understanding of the debates surrounding functional, competitive and corporate strategy’. Traditionally, the delivery of the module would elaborate on these debates during traditional lectures, using de Wit and Meyer (2004), in which 10 strategic business paradoxes are discussed. The examination as assessment instrument was complemented by coursework about a generic question handed out by the teaching staff; the coursework also called for a case study (a traditional way of teaching and assessing strategic management in business schools). Since this traditional module design was viewed as only requiring passive engagement, particularly for the paradoxes, the delivery from the academic year 2006/2007 on was changed. Because of the extent of supporting materials, including the use of a Virtual Learning Environment, it was not until the fourth delivery that the full suite of support, including tutorials, and programming could be realised. These changes are captured in Table 1; this overview also shows that the students’ experience might vary between these editions of the module. After the academic year 2009/2010 changes were implemented in programmes, resulting in the withdrawal of this module. Hence, the provision of the second to the fourth edition of the module Strategic Management (2007/2008 to 2009/2010) has served as a case study for this paper.

Apart from the delivery of contents and the preparations for the exam, the coursework and the related activities in the module are the units of analysis for the case study. Following one of the learning objectives, three streams of activities for coursework could be viewed as activating students to become independent learners and encouraging the research-teaching link. The first stream is writing of the coursework, which follows the steps of (1) topic selection, (2) generation of academic literature for the topic (basically, at least 5 academic journal publications), (3) appraisal of references (one of them submitted as an example for formative feedback), (4) draft report and (5) final report; note that for the steps 1-3 formative assessment was given by the module coordinator. For this first stream of coursework the students were divided into six groups, each group dealing with a paradox of strategic management found in the main textbook for the module (for example, the paradox resources vs. markets [de Wit and Meyer 2004, 245-247]). Each student chose a topic that was positioned or related to the paradox of her/his group; there were supporting mechanisms to avoid replication of topics chosen by students for their coursework. The second stream in the learning activities is the delivery of a commentary (review) on the draft report of a student in one of the other five groups. It was required that each commentary was based on the original paradox and two more academic references (that way indirectly increasing the sources used); students were expected to include the commentary and a response to it in their final report. The third stream was a structured debate by each group about their paradox. The purpose of this debate was three-fold: (a) to activate a group to study their own paradox in-depth in order to form their own final report and (b) to learn more about organising arguments for and against and (c) to inform the students about the other paradoxes to assist them in writing an informed commentary. For the coursework components three marks were awarded: (i) debate as group activity, (ii) commentary as individual effort, and (iii) final report as individual work; the relatively high weight of the commentary also shows its importance as formative assessment. The remaining 45-50% of the total mark for the module went to the examination (this percentage varied over the academic years considered). Note that all these streams in the three deliveries are part of regular academic processes.

3.2 Data Collection

From the three deliveries descriptive data on performance were collected from each of the first diets (Table 2a-c). For example, during 2009/2010, while 63 students participated in the
module, only 49 composite marks were eventually complete and useful; 3 students had received part of the marks in the previous academic year and 11 others had not completed all components for the composite grade at the end of the first diet. From these 49 usable results, 28 were from home, 18 from EU and 3 from Chinese students (see Table 2c). During the provision in 2007/2008, the delivery at a remote campus was done by a local lecturer. From 2008/2009 on, the lectures, tutorials, debates and group activities were transmitted by videoconferencing to the remote campus (two-way communication). Hence, for the purpose of analysis the home group has been split into two subgroups: main campus and remote campus. All EU and Chinese students followed the module at the main campus. The three Chinese students were direct entry students into third year as they had already completed 3 years of study at their university in China. Given the relatively low number of international Chinese students, the outcomes of this study can only be viewed as explorative.

In addition, qualitative information to complement the quantitative data was gathered through unstructured interviews with students during the delivery in 2009/2010. Firstly, the meeting with the teams to prepare for the debates was taken as an opportunity to collect information. Invariably during these meetings, each group of students (consisting of 4-6 individuals) was asked what they liked and disliked; each meeting was recorded in a logbook. Next, a session was organised with four student representatives, chaired by a teaching assistant. The teaching assistant and the four representatives agreed the minutes of the meeting. A plenary discussion with about 30 students served as a third source of information; notes were taken directly afterwards. All these three sessions could be seen as focus groups and the results are displayed in Table 3. Finally, the individual meetings with students from week 10 were taken as an opportunity to deliberate on the module (see Table 4); again students were asked what they liked and disliked and outcomes recorded in a logbook (26 out of 49 students). These four types of interviews - three types of focus groups and individual interviews - comply with the requirement for case studies to include a wide variety of sources and evidence.

4 Results
Returning to the available data, the marks were collected unabridged from the module results. Three groups were distinguished: home, EU and Chinese; the data from the home students’ group one is presented as two separate results, one for students at the remote campus and one on the main campus (Table 2). The mark for the debate has been omitted since that was not an individual mark but a mark for a group effort and only came into play during the 2009/2010 delivery; each of the groups consisted of a random composition of home, EU and Chinese students making it difficult to differentiate between these groups in terms of attainment. Furthermore, since the coursework is the focus of this paper, the average score has been set at 100 for each academic year.

Chinese students performed far better in 2009/2010, while the exam results are consistent over the two years. Table 1 (all tables presented at the end of this paper) gives a clue to why that might be: only during the final year of delivery were the full support mechanisms and group interaction available. For example, that was the only year during which students as a subgroup sat together and discussed the individual topics to ensure nobody in that subgroup had a similar topic; these tutorials were facilitated by doctoral students with the remit that the module students themselves should engage and make the decisions. This would support the conclusion that staged learning is only successful for Chinese students when appropriate supporting mechanisms are in place.

The examination results show a reverse trend in the same tables. To compensate for possible differences in proficiency in English, the descriptive text, consisting of about 300-500 words, was published 48 hours in advance, while the factual questions were presented during the examination. This allowed all students to understand the full text and give every participating student as far as possible an equal opportunity. Note that this ‘preview’ of examination questions was the only concession to different levels of proficiency in English. Despite that, the traditional examination yielded a very different trend and across the three years does not show any difference in performance.
The results of the unstructured interviews in the three types of focus groups are displayed in Table 3. Each statement shown in the table was derived through recursive abstraction from notes. Comments and results not related to the teaching method were removed. In both Tables 2 and 3 it should also be noted that the further the module progressed, the more confident students grew in how to prepare the coursework. These summarised statements obtained in a systematic way form the basis for the later discussion of results. During the meetings with the debating teams, the first focus group in Table 3, students frequently raised the issue that this was the first time they had been required to study academic publications (particularly journals; the guidelines for the module stated text books were not considered as counting towards the required academic publications, although they could be used). Most students were insufficiently aware of journals or how to use them. Students also stated that they very little experience of any of the learning activities before and wondered why in earlier years these had not been part of other modules. The interview with the representatives (or focus group for that matter) added the length of the time allocation (second row in Table 3). But proof of the time spent by students pointed out that an initial distribution of time allocated to the learning activities by the module coordinator was about right (students provided proof that they needed to spend about 160-200 hours on this module, which corresponds with the nominal 200 effort hours). Most interestingly, students requested that all steps, even those with formative assessments for defining the topic of the coursework, were marked. Furthermore, during the focus group students stated a preference for assignments set by the tutor(s) above developing their own topic; some viewed this part of the process as a waste of time. In addition, the representatives raised concerns about the videoconferencing and group meetings across campuses; although listed in the table, these are not seen as essential to the core of this study. A plenary discussion with all students raised similar points as the meeting with the representatives on the set-up of the module, albeit that the discussion was led mostly by HND Direct Entry students (spontaneous voting was used to find this out), see Table 3. But in addition, students made remarks about the need to review somebody else’s work; they did not view it as formative assessment towards reviewing their own work. No EU and Chinese students joined in this part of the discussion at all, except for some comments about it being their first time to do an assignment like this. Quite far into the module (week 8), there was still great resistance from home students to the unusual approach of this module. Finally, meetings with individual students, see Table 4, generated student perspectives on the module consistent with the other three ‘focus groups’. Again the statements in the table were obtained through recursive abstraction. Notably, at that stage, 10 weeks into the module, the Chinese students did not ask for support anymore; also these students did not miss any lectures or tutorials. All those individual meetings, most of them related to compensatory work for absence, were an opportunity to discuss the progression of the module and students’ views.

5 Discussion of Findings
The results show that Chinese students possibly perform better when engaged with staged writing of coursework (see Table 2), although it might be necessary to have appropriate support mechanisms in place (based on the performance in 2009/2010). This confirms the positions of Watkins (2000) and Wang and Byram (2011). The EU students performed better in the final exam than the home students at the main campus, while doing worse in the commentary. That difference is hard to explain, also when taking into account that the Chinese students performed at the same level as the home students for the commentary. It could well be that the confidence level of commenting on others’ work was easier for home students (also taking into account the relatively short turnaround time of 2 weeks for a commentary); at that stage of the commentary, the Chinese students were not asking for support and feedback any more (except to know how well they were doing, mostly asked informally during lectures). This is commensurate with Wong’s finding (2004, 165) that Asian students are able to adapt to the new style of teaching and learning within two to three months; this corresponds more or less with the submission of the draft report in this
particular module. The design of the module also made students have direct contact with materials, a preference of international students found by Ladd and Ruby (1999, 365). Hence, a first finding of the research is that there are indications that the construction of step-by-step coursework complemented by a low number of support mechanisms (like guided group meetings) suits the Chinese students very well. While Chinese and EU students generally appreciated the staged learning, the approach caused a larger divide between the home students. In Table 3 it can be seen that some students have great difficulty interacting with other students about their work and prefer to generate coursework in one go based on a generic assignment set by the module coordinator. As one student put it during the plenary discussion:

Who are you to tell me how to do my coursework? I know it because I have done it many times successfully already and I want to work on it and complete it in just one weekend. The point of view of the home students seemed to be an essay on a generic topic, to be submitted halfway or two-thirds during the teaching period. That group viewed the phased development of the coursework as a nuisance in their predetermined plan; that articulation was stronger from students with an HND background. This attitude may be due to their previous experience of study at a further education college; Barron and d’Annunzio-Green (2009, 9) summarise these differences as perceived by direct entry students:

less approachable staff, stricter time scales, lesser expectations about standards of work and less familiarity with the pedagogical approaches adopted. Submissions of coursework early during a semester would also allow more time for preparing for examinations. Furthermore Regan (2003) points to the necessity for the link between teacher-led activities and the development of independent learners; but that seems not to have been taken on by the Direct Entry HND students in this module. Comments like this about the appropriateness of the module design were not raised by the EU and Chinese students; these students had only initial difficulties grasping the set-up of the model but the more the module progressed, the more the debates took place, the more the benefits of this approach became apparent, the more they seemed at ease. Hence, a second finding suggests that home students have become accustomed to the generation of coursework in blocks, particularly essays, and do not see the need to develop academic skills as essential to their learning process. However, there was also an equally-sized cohort of home students who rather enjoyed the experience and saw the benefits well beyond this module. Those results reverberate in the time students needed to allocate to this module. Initially home students expressed concern about the time needed for completion of each learning activity. However, through the unstructured collection of data about hours spent, it became apparent that those corresponded with an initial estimation for the module (a typical student spending about 160-200 hours for a 200-hour module). When asked, the students said that this module did cause them to spend more time on learning activities than other modules. Some indicated that they had problems combining work to financially support themselves. The limiting of time devoted to studies in relation to academic performance is also mentioned by Moreau and Leathwood (2006, 35). Again, the point of reference for students seemed to be the writing of essays in a fairly short time, which creates more time for personal, non-study related activities, and this supports the second finding of this study.

Some students reported practical problems. For example, students experienced difficulties meeting deadlines for other modules running in parallel. Particularly, a student with learning disabilities did not manage to work simultaneously on different subjects in conjunction with the many activities in the module. Other students brought the meeting of deadlines to the attention of the module coordinator, too, but that seemed related to jobs they were holding to support themselves. On the contrary, a number of mature students, studying full-time with full-time jobs, lauded the approach of the module since they took it as an opportunity to enhance their skills. Hence, a third finding of our study indicates that continuous learning activities and formative assessment might be experienced as detrimental to other obligations
by students; a fourth finding was the difficulty experienced by those students with particular learning abilities who perform better when concentrating on one assignment. This brings us to the impact of the module design on learning activities and styles. The case demonstrates that the set-up of a module in the form of step-by-step building of coursework might benefit international students. In particular, the written (formative) feedback might be preferred by Chinese students and be key to their progression (Kingston and Forland 2008, 217). But it is not merely the staged writing of coursework, but also the many activities, like debating and group interaction, which contribute to these results. However, it seems to come at the expense of the performance of home students, although that could be partly attributed to their educational background. But it is also the divide among home students that such a module causes that must be considered. Therefore, a fifth finding of our study is that innovative module design like this case might benefit international students.

6 Conclusions

The principal claim resulting from the case study is that this method of teaching can lead to successful completion of a module by all students, not just students familiar with the western tradition of learning. Some exposure to students of this kind of module design might prepare students for what is expected of them in higher order skills in HE: to learn how to learn, rather than just acquire knowledge; to become collaborative student researchers rather than passive receivers of knowledge; to critically assess knowledge rather than simply accept what they are told; to be autonomous learners rather than reliant on lecturers. In the context of principal approaches for dealing with international students, this explorative study has broadened the scope by adding module design as a determinant. While the paper stresses its advantages, the module design for engaging with students acknowledges the paradox of the Chinese learner and steps beyond the cultural differences by building on generic academic skills (both part of the other two principal approaches embedded in the literature review). It also empowers module co-ordinators to address all students, no matter their background, and not see ‘international students’ as a challenge. However, it comes at the expense of more effort in formative feedback by the module co-ordinator and managing peer-review and groupwork. Also, it has a backlash in terms of learning problems for Direct Entry HND students, particularly for third-year undergraduate studies. But the benefits seem to outweigh the efforts, if the learning experience of students and the acquisition of academic skills take a central position. More studies into the specific pedagogies of module design would contribute to the enhancement of current practice in UK higher education.

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References

Edwards, V and Ran, A (2006) Meeting the needs of Chinese students in British Higher Education Reading: University of Reading


Robson, S and Turner, Y (2007) 'Teaching is a co-learning experience': academics reflecting on learning and teaching in an 'internationalized' faculty, Teaching in Higher Education, vol 12, no 1, pp 41-54


Wang, L and Byram, M (2011) 'But when you are doing your exams it is the same as in China' - Chinese students adjusting to Western approaches to teaching and learning, Cambridge Journal of Education, vol 41, no 4, pp 407-24


Tables

Table 1: Overview of changes in module design. The guest lecture was delivered by a CEO or top manager. The development of the module design over the successive years was driven by the stage introduction of its elements, the development of supporting materials (Virtual Learning Environment) and systematic evaluation of feedback from students.

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<td>Tutorials</td>
<td>1 tutorial introducing coursework.</td>
<td>1 tutorial introducing coursework.</td>
<td>1 tutorial introducing coursework.</td>
</tr>
<tr>
<td></td>
<td>4 tutorials about an example of paradox (3 x 1 hour video, 1 hour presentations).</td>
<td>4 tutorials about an example of paradox (3 x 1 hour video, 1 hour presentations).</td>
<td>1 tutorial about an example of paradox (video shown and available outwith contact hours).</td>
</tr>
<tr>
<td></td>
<td>6 tutorials devoted to debates, each devoted to a separate paradox.</td>
<td>6 tutorials devoted to debates, each devoted to a separate paradox.</td>
<td>6 tutorials devoted to debates, each devoted to a separate paradox.</td>
</tr>
<tr>
<td>Collaboration in groups</td>
<td>Initiative of students (only for part determined by deadlines in schedule).</td>
<td>Initiative of students (only for part determined by deadlines in schedule).</td>
<td>1 tutorial about setting topics within groups.</td>
</tr>
<tr>
<td></td>
<td>Students at remote campus as different subgroup.</td>
<td>Students at remote campus as different subgroup.</td>
<td>1 tutorial about writing report (outwith regular schedule).</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Subgroups mixture from both campuses.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Collaboration in group necessary but supported by two short meetings with module coordinator.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>1 tutorial about preparations for exam (outwith regular schedule).</td>
</tr>
</tbody>
</table>
Table 2a: Performance of students for individual components during 2007/2008. The label "Home (P)" refers to the students on the main campus.

<table>
<thead>
<tr>
<th>Number of students</th>
<th>Weight (%)</th>
<th>Home (All)</th>
<th>Home (P)</th>
<th>EU</th>
<th>Chinese</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Final Report</td>
<td>20</td>
<td>26</td>
<td>21</td>
<td>23</td>
<td>10</td>
<td>59</td>
</tr>
<tr>
<td>Commentary</td>
<td>30</td>
<td>145%</td>
<td>143%</td>
<td>128%</td>
<td>116%</td>
<td>134%</td>
</tr>
<tr>
<td>Exam</td>
<td>50</td>
<td>81%</td>
<td>70%</td>
<td>66%</td>
<td>65%</td>
<td>72%</td>
</tr>
<tr>
<td>Composite grade</td>
<td></td>
<td>106%</td>
<td>98%</td>
<td>91%</td>
<td>83%</td>
<td>96%</td>
</tr>
</tbody>
</table>

Table 2a: Performance of students for individual components during 2008/2009. The label "Home (P)" refers to the students on the main campus.

<table>
<thead>
<tr>
<th>Number of students</th>
<th>Weight (%)</th>
<th>Home (All)</th>
<th>Home (P)</th>
<th>EU</th>
<th>Chinese</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Final Report</td>
<td>20</td>
<td>42</td>
<td>39</td>
<td>9</td>
<td>-</td>
<td>51</td>
</tr>
<tr>
<td>Commentary</td>
<td>30</td>
<td>100%</td>
<td>100%</td>
<td>99%</td>
<td>-</td>
<td>100%</td>
</tr>
<tr>
<td>Exam</td>
<td>50</td>
<td>87%</td>
<td>82%</td>
<td>99%</td>
<td>-</td>
<td>89%</td>
</tr>
<tr>
<td>Composite grade</td>
<td></td>
<td>102%</td>
<td>100%</td>
<td>107%</td>
<td>-</td>
<td>103%</td>
</tr>
</tbody>
</table>

Table 2c: Performance of students for individual components during 2009/2010. The label "Home (P)" refers to the students on the main campus.

<table>
<thead>
<tr>
<th>Number of students</th>
<th>Weight (%)</th>
<th>Home (All)</th>
<th>Home (P)</th>
<th>EU</th>
<th>Chinese</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Final Report</td>
<td>20</td>
<td>28</td>
<td>20</td>
<td>18</td>
<td>3</td>
<td>49</td>
</tr>
<tr>
<td>Commentary</td>
<td>25</td>
<td>99%</td>
<td>93%</td>
<td>99%</td>
<td>118%</td>
<td>100%</td>
</tr>
<tr>
<td>Exam</td>
<td>45</td>
<td>84%</td>
<td>78%</td>
<td>81%</td>
<td>67%</td>
<td>82%</td>
</tr>
<tr>
<td>Composite grade</td>
<td></td>
<td>89%</td>
<td>84%</td>
<td>82%</td>
<td>85%</td>
<td>86%</td>
</tr>
</tbody>
</table>

Table 3: Overview of unstructured group meetings

<table>
<thead>
<tr>
<th>Week</th>
<th>Participants</th>
<th>Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>4-10</td>
<td>Separate meetings with debating teams</td>
<td>Very new approach. Have never experienced anything like this before (all students). HND (Direct Entry) students report a large gap between previous teaching practices and requirements for this module. 11 students reported that for the first time they to read an academic journal and read the summary in another module running in parallel. Very different from the in-depth evaluation required for this module. Relatively new to prepare for a module in steps rather than one (broad) assignment. Seeking clarification why the structure for this module is needed. Lectures are very good. Good use of demonstrating theory through examples and cases. Guest lecture by Operations Director of medium-sized company on strategy formation and personal experience much appreciated. Some students did not see the need for reading academic journal</td>
</tr>
<tr>
<td>Week</td>
<td>Participants</td>
<td>Outcomes</td>
</tr>
<tr>
<td>------</td>
<td>------------------------------------------------------------------------------</td>
<td>------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>7</td>
<td>Meeting with representatives (4 students, chaired by teaching assistant)</td>
<td>Why not exposed to learning some steps in years before (like critically analysing texts and writing coursework in steps)?</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Involvement of other lecturers to deliver on specific topics new but beneficial to learning experience.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Request to allocate marks to every step of the coursework (for example, the selected topic).</td>
</tr>
<tr>
<td></td>
<td></td>
<td>For too many marks allocated to commentary (25%), which is only max. 500 words. Is disproportional to the marks for final report (20%), which is max. 3000 words.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>This type of learning should be introduced in earlier years (particularly on style of referencing and writing a report [ed.: as opposed to submitting essays]).</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Hours for module exceeding hours scheduled by students.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Call for generic topics set by tutor. Coursework not contributing to gaining broader knowledge about strategic management.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Video-conferencing with other campus limits learning experience for those students (remark: caused by some unexpected technical difficulties); limits peer-to-peer contact.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Limited possibilities for group meetings due to less facilities for students video-conferencing.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Self-assessments for preparations exam hardly used due to time needed for steps of coursework.</td>
</tr>
<tr>
<td>8</td>
<td>Plenary discussion of coursework</td>
<td>Home students, particularly HND Direct Entry, expressed concerns about learning style needed for assignment. Clearly expressed wish to have on broad assignment.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Same group expressed concerns about commentary and doubted why they should read work from others.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Home students about 50-50 divided about set-up of module.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>EU and Chinese students hardly participating in discussion.</td>
</tr>
</tbody>
</table>

Table 4: Overview of individual interviews at aggregated level. Please note that curiously enough none of the Chinese students asked for such an individual meeting, but there was contact during the lectures.

<table>
<thead>
<tr>
<th>Week</th>
<th>Participants</th>
<th>Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>10-14</td>
<td>Meetings with individual students (26 in total)</td>
<td>French students: used to writing about controversies. Less used to requirements for citing and referencing and not familiar with using a case study in report.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>German students: level of assignment complies with German experience but less used to step-by-step writing of report. Debating of controversies new. One student reported that topics were already dealt with during first year of undergraduate programme in Germany.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Home students: divided about module. With progression of module better understanding of what is required. Some asking that other modules should be organised like this. One student: when sitting down and looking at requirements for module, this is to be understood and do-able.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4 home students reported problems with the planning and scheduling in conjunction with the coursework for other modules.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5 other home students mentioned that the module was hard to combine with their job.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3 students with learning disabilities found that this stage-wise progression of coursework suited them well while 1 recorded that he preferred to submit every 14 days one coursework.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Benefits well beyond this module. Other lectures should adopt the same approaches or build on this module.</td>
</tr>
</tbody>
</table>
Enhancing students' sense of civic responsibility and global citizenship through service-learning

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ABSTRACT: There has been an increasing call for universities to educate students for civic responsibility and global citizenship (e.g., Campus Compact, 1999; Huber and Harkavy, 2008). This paper reports on the design and pilot implementation of a credit-bearing service learning subject offered in a Hong Kong university with an embedded international service-learning experience, and examines its impact on student learning.

1 Introduction
International or offshore service learning projects are increasingly attracting attention in tertiary education. These projects combine serving the community with the challenge of working in a culture or society that may be racially, culturally or linguistically different from one's own. There has been extensive documentation on the added impact that this brings to students' generic skills such as their global outlook and their racial/cultural sensitivity, or even their language skills. However, by nature, these projects are also more challenging as students are required to carry out projects in communities that they are not familiar with, and sometimes may have difficulty communicating with. The locations themselves may also be far from home, whether it be in the physical distance, or in other factors such as the standard of living or level of hygiene.

As a result, most international service learning projects involve small, elite groups of students. Quite often, these students are in their senior years of study in university and have reached a certain level of maturity. Many of these students may also have previously participated in academic exchange, or be studying in majors that incorporate an element of internationalization or foreign study to them.

At The Hong Kong Polytechnic University, most of our students are the first generation in their families to attend university. We therefore believe that it is important broaden their exposure by involving them in high-impact, integrated projects that require independent thinking, creativity and problem solving. Commencing in the 2013 academic year the University implemented a major initiative in which every student is required to take a credit bearing subject incorporating service learning. This is part of the University's commitment to "cultivating a heart to serve" in a new four-year undergraduate curriculum (http://4yc.polyu.edu.hk/featurell.html). Due to the demographic makeup of the society, many of them have not previously interacted to any great extent with peers from other cultures or ethnicities. Therefore, where possible, we believe that it is also beneficial for them to build up their global outlook through exposure to foreign cultures and countries. Many of these learning objectives can be satisfactorily achieved through service learning, and several of our academic service learning subjects include offshore projects.

This paper reports on a service learning course titled "Service Learning and Civic Engagement in the Information Age". This course is offered concurrently as an elective to Computing students and as a General Education course to students from other departments. In the particular offering of the course presented in this paper, 46 students were enrolled, 27 of them Computing students, and the rest a mix from various disciplines ranging from Civil Engineering to Nursing to Humanities. Most (71%) were first-year students.

The three-credit subject was comprised of a) discipline-specific learning activities (focussing on the digital divide), b) activities related to preparing for the service-projects, c) participation in the projects, and d) reflective activities. Student performance in all four areas were assessed and contributed to the final grade received. In addition to the lectures, tutorials and workshops conducted by the subject lecturers and external speakers (components a and b
of the subject), students were required to undertake either an 8-week project in Hong Kong, or a 12-day service learning trip to Cambodia (component c) and participate in reflective activities before and after the projects (component d). Nearly three quarters of the enrolled students (34) opted for the Cambodia project.

2. Outline and Structure
Due to the logistics of incorporating a service learning project with academic content, the course was planned to run over two semesters, with the bulk of the academic lectures and pre-project preparation happening over the Spring semester (January - May), and the service component and post-project reflections happening during the summer semester (May-July).

Students who were interested in the course had to go through an interview process before they were allowed to register. The purpose of the interview was to ascertain the students’ suitability for the service projects, and also to allow them to assess themselves and their readiness for such a project.

The course was co-taught by two instructors, and we also had the help of five teaching assistants, several of whom were graduate students. Finally, two senior undergraduate students also joined the course as teaching assistants and team leaders. Most of the teaching assistants had previously participated in service learning projects, including international trips, and only students who had previously participated in the subject as enrolled students were eligible to join as senior undergraduate students with team leadership responsibilities.

2.1 Learning Outcomes and Syllabus
The objectives of the course revolved around introducing students to the impact of the technology and the potential for using technology for the community. Specifically, the course objectives were:
To acquaint students with significant issues of social needs, justice and ethics related to the information age, such as the concept of the information divide.
To acquaint students with significant issues of social needs, and how technology may be used to meet these needs.
To develop students’ sense of social awareness, responsibility and engagement.
To enhance students’ generic competencies, including that of problem solving, communication and teamwork.

2.2 Pre-project Preparation
Prior to going on the overseas project, we incorporated a number of activities that were designed to prepare the students both intellectually as well as mentally for the rigors of the project (components a and b mentioned earlier)

2.2.1 Discipline-specific teaching activities
The course started off with a series of 5 lectures, with the objective of introducing students to the theoretical and conceptual discipline-specific content. Namely, the following topics were
covered: fundamentals of service learning; community psychology; diversity in technology; the impact of technology and the digital gap; and technology in service to disabled peoples. Each of these topics are very broad and could easily account for several lectures on their own; our goal, however, was just to give a high-level overview of each topic.

To aid the students in anticipation of the post-project reflections, Figure 18 shows the self-assessment exercise that students were asked to complete during the first lecture. It asks students to evaluate themselves on their knowledge of information technology, the community, and their ability to apply computing technologies to social needs.

At the end of these 5 lectures, students went through a mini-project that was designed to assess their suitability for the main project, including their generic skills of teamwork and leadership. The mini-project took place in a school for children with severe mental and cognitive handicaps, where the students organized a fun fair day for the children. Teaching assistants supervised the students during the preparation of the project and also assessed the students’ performances during the mini-project itself. These marks were then used to inform the allocation process for the main project. Overall, 90% of the students were allocated to their first choice of project (local or overseas).

2.2.2 Project-specific teaching activities

Students allocated to the Cambodia project were required to attend a number of workshops and lecture sessions that were designed to prepare them mentally and intellectually for the challenges of an overseas project, as well as to educate them about the specific challenges and issues faced by the people that they would be serving. The students opting to participate in the local project were concurrently participating in their own project-specific activities (not described in this paper). For example, one lecture introduced students to the Khmer Rouge regime that ruled Cambodia from 1975-79, the genocide that they caused, and the psychological and social scars left on the country. Other lectures covered various issues such as the HIV/AIDS prevalence in Cambodia and child prostitution.

In addition to the theoretical knowledge, workshops were used to equip our students with the practical know-how needed to carry out their projects. Since a number of our projects involved the teaching of various technology-related topics, classroom management and developing lesson plans were covered. Other workshops were designed to teach the specific technique or technology. For example, several of our projects involved teaching digital storytelling to underprivileged children. Therefore, a workshop on image theatre was organized to help students learn how to facilitate the children to come up with stories, and workshops on Scratch (Maloney at al, 2004), a graphical programming language that has been used successfully to teach children creative media development, and stop-motion animation (video editing) were also organized. Other workshops covered robotics and general computer literacy.

To allow for meaningful application of what was being learned during the activities to planning the service learning projects he students were allocated to project teams and informed of that allocation well in advance. There were a total of nine extended projects with each student participating in two different projects. The topic and overall schedule of each project was pre-determined in discussions with the NGOs, but the planning of the projects (including the teaching schedule and the deliverables) were left up to the students to plan and design. Students had to come up with lesson plans, worksheets and sample deliverable projects, which were presented and assessed by the teaching team.

The contribution of each student during the preparation phase - including their actual contribution to the project materials, as well as their ability to communicate and work with their teammates - accounted for 30% of their grade in this course.

3 Structure and Setup of Overseas Project

The Cambodia project lasted a total of 12 days. Since our team was relatively large (we had about 40 people in total, including the teaching team), this posed a number of challenges with logistics. Specifically, we had the following concerns: 

*We do not want to create a burden on our NGO partners, or disrupt their normal workflow too greatly.* Since most NGOs do not have the capacity to handle large groups of people, or
Table 1: Schedule of Service Learning Project

<table>
<thead>
<tr>
<th>Day</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Orientation with local college students</td>
</tr>
<tr>
<td>2</td>
<td>Heritage and Historical visit to Genocide Memorial; Walking tour of slum community.</td>
</tr>
<tr>
<td>3-7</td>
<td>Main service projects at various sites in Phnom Penh and surroundings</td>
</tr>
<tr>
<td>8</td>
<td>Break</td>
</tr>
<tr>
<td>9</td>
<td>Travel to Siem Reap</td>
</tr>
<tr>
<td>10</td>
<td>Once-off service project at Tonle Sap fishing communities</td>
</tr>
<tr>
<td>11</td>
<td>Visit to Angkor Wat</td>
</tr>
<tr>
<td>12</td>
<td>Return to Phnom Penh and departure</td>
</tr>
</tbody>
</table>

We do not want to overstretch our students. A good number of our students had never left their hometown prior to the project. Therefore, there will be both psychological and physical challenges. While we want to challenge our students, we need to make sure that there are safe "retreat spots" for them. We wish all of our students to have significant (at least 50%) direct interaction with real people. In other words, even students who work in technology infrastructure projects, such as building computer systems, would work on that project only for half of the time, with the rest dedicated to a teaching or interview project.

Error! Reference source not found. and Table 2 show the schedule of the Cambodia service learning project and the detailed arrangement of the main service period. The purpose of the first two days are to give the students an understanding of the background and the history of the country, and also to expose them briefly to some of the more extreme environments that they would be working in. We also arranged for our students to serve together with their peers from a local college, which introduces an element of cultural exchange into the project. As we had expected, most of our students expressed shock at the living conditions of the slums, and a good number expressed disgust at the hygiene conditions. A few even expressed fear.

To address the first concern, our schedule limits our time with any particular service site to 5 half-days, which is a manageable amount of time that can be spared by most of our NGO partners. The students therefore would work on one project during the morning, and then shift to work on another project in the afternoon. To ensure some consistency between the teams, groups of students would shift teams together. In other words, a student would work with one team on a given project in the morning, take a break for lunch, and then move to another project with a slightly different team in the afternoon.

The design of the schedule also addresses the second concern. It allows students to "check in" and "check out", putting them to work on projects that stretch them mentally and physically, but always with a safe retreat zone within reach. Given the reactions of our students to just a walk through the slum communities, we felt that this was quite necessary.
### Table 2: Detailed Schedule of main service week

<table>
<thead>
<tr>
<th>Morning</th>
<th>Lunch</th>
<th>Afternoon</th>
</tr>
</thead>
<tbody>
<tr>
<td>Team</td>
<td>Project</td>
<td>Team</td>
</tr>
<tr>
<td>A</td>
<td>Teaching Scratch and digital storytelling to HIV/AIDS positive orphans at an orphanage</td>
<td>1</td>
</tr>
<tr>
<td>B</td>
<td>Teaching stop-motion animation and digital storytelling to children at a slum community center</td>
<td>2</td>
</tr>
<tr>
<td>C</td>
<td>Doing consultancy work for a women’s shelter</td>
<td>3</td>
</tr>
<tr>
<td>D</td>
<td>Doing renovation for a community center.</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5</td>
</tr>
</tbody>
</table>

The third concern is addressed by the shifting of the students between the different project sites. Students involved with the projects that do not have a lot of direct interaction - namely, those that revolve around consultancy work (Project C), Infrastructure upgrade (Project D), and computing systems (Project 3) are shifted to other projects that involve more human contact, for example, teaching projects, for the other half of the time.

The activities towards the end of the project are designed to give the students an appreciation of the diverse culture and historical heritage of the country. So as not to overwhelm the students (who would be tired from a full week's work by that point), this was a low-intensity project that involved activities that they had already been leading during the previous week.

Students' contributions and attitudes, both towards the service recipients as well as to each other, during the project execution component, accounted for 40% of their grade in the course.

4 Reflections and Reviews

Reflection is a necessary component in service learning subjects to both deepen the experience for the students beyond an often positive surface emotional response such as "I had so much fun and it felt so good to help the people" and to ensure academic rigour. In this subject reflections occurred in a variety of ways (including surveys, small and whole group discussions and personal written logs) and across the entire period covered by the subject.

During the service project period there were nightly review and reflection sessions to assist the students in their learning process, which were supervised and facilitated by the teaching team. The review sessions, which were led by the teaching assistants, had the purpose of helping students to reflect over the execution part of each sub-project, helping them to identify and find solutions to challenges and difficulties that had arisen during the daytime, and to refine their plans for the upcoming days. The reflection sessions, on the other hand, were led by the academic staff and centered on helping students to link their experiences with the academic content of the subject. Students often had to be reminded or even taught to delve beneath the immediate surface conditions, to think hard and critically analyse the implications of their observations, and to empathize with the community and the service beneficiaries. Other students had to be reassured about the usefulness or impact of their service project. As students were serving on two different sub-projects, this meant that three different meetings had to fit in the nightly schedule for each of the five days of service.
To train them to better articulate and organize their thoughts, students were also asked to write daily log sheets/reflection journals. The reflection journals used a few simple questions (e.g., "What would you change in what you did today?", or "How did what you do impact the digital divide?") to guide students to think about their daily experiences and to link them with the topic of the course.

On their return from the project, each project team collaborated on creating a web site to document their work and experiences. In addition, the self-evaluations that the students completed at the beginning of the course were presented to the students again, and the students were instructed to compare their pre and post responses in another learning activity. Each team then summarized their experiences and findings in a presentation.

The reflection elements (journal, logsheets, webpage and presentation) took up 30% of the grade for the course.

5. Discussion and Lessons Learned

Before and after the projects, the students were asked to fill in survey forms that assess their generic competencies on 4 dimensions: interpersonal skills, teamwork, problem-solving and social responsibility. 5 questions were used to assess each item. 29 students completed both the pre- and post- surveys.

Figure 19 shows the results of the survey. It can be seen that students reported gains in all dimensions. A series of paired t-test performed on the differences in each dimension on the pre-project and post-project results show that the post-project gains are statistically significant at the 0.01 level. This is consistent with the results of other studies (e.g., Astin et al., 2000; Denby, 2008; Eyler, et al., 2001), in which it is reported that students generally find such service-learning experiences impactful and rewarding. Separately, Figure 20 shows a
number of questions that were surveyed post-project which show encouraging results on several issues related to social responsibility.
A more detailed picture can be constructed by analysis of the students’ reflective journals and their project-end report and website. The 4-dimensional pre- and post- self-evaluations give a semi-quantitative picture. Figure 21 shows two rather typical students' project-end reports. It is quite obvious that both students had quite remarkable gains in all dimensions. We can also gauge their achievement of the learning outcomes (Section 2.1) using the written reflections from their reports:

**Outcome 1 and 2:** On their reports, many students reported that the experience had made them more aware of the implications of poverty, illiteracy and the lack of access to information in a way that they had never previously imagined:
Before the trip, I merely know that … life … is difficult and have to strive for a living. But … I realized that I may not know as much as I thought… These are problems that cannot be resolved at once by giving them money. (CL)
How could the children compete with others in the future? … In order to break this circle, job for adults and education for children are needed. (SY)
With respect to Outcome 2, some students stated that seeing the results of shoddily put together systems and equipment had also reinforced for them the importance of professional ethics and responsibility:
Since the system needed to be paid for, it should be perfect and faultless. In fact, it had some mistakes…, it was totally insane and consumed a lots of time. (NL)
Students’ sense of social awareness (Outcome 3) was also enhanced. Many of the students expressed an interest in continuing to serve and contribute. Most explicitly:
But after finished 12 days service in Cambodia, I think I have a stronger sense of social responsibility… (SY)

Outcome 4 - the generic competencies have been assessed in the survey. Many students also made references to those in their reflection. One girl writes how she has become more self-confident through learning that she brings her own contribution to her team:
I used to think that my knowledge is not enough to help others and there is not much thing I could help. … the children still … appreciate our work…This made me reflect on myself and I start to think there are many things I can do…We could make a change for them and might have a long-time effect by a tiny act. (LL)
And many students reported that they gained more than they expected:
I gained a lot from the trip to Cambodia. I gained opportunities to serve someone I have never met before, to think deeply about what and why I was doing so in the trip. …. I thought that I paid a lot, but I gained even more, much much more than that… (KM)
Some students also reported on their gains in terms of widening their global outlook:
To tell the truth, what I saw in Cambodia was just beyond my imagination. However, I know that it is just a small part of the poor in the whole world... (TC)

However, we would like to point out that substantial reflection was required to guide students’ learning. For example, it is not always obvious that the deliverables from the projects are of benefit to the local people. Some students report:

Whether IT is an essential element that the underprivileged needs and how useful... these are what I concern. (YK)

... they could get some final products but what I think is that, there was nothing to help them to get out of the underprivileged situation. (HY)

The discussion and feedback from the reflection sessions were crucial in helping students to view their efforts beyond providing immediate help and support.

Another important lesson that we learned was to manage the expectations of the students. Many of the issues that are faced by underprivileged communities are complex and intertwined, and students often feel helpless when they grasp the enormity of the problem, and their inability to make a difference:

... this field is much much wider and deeper than I expected. (Just like I used to think it is the ocean, but now I would like to treat it as the Black Hole...) (KM)

Since we are not the citizens there, we cannot do much work to help... (YK)

Some students, however, were able to look beyond the bigger problem, but instead to focus on what they could do:

I would consider the situation or background of the target... Once I knew more, "I want to help them" and "I can help them" appeared in my mind frequently. (SY)

Some students expressed frustration with the NGOs that they were working with. In focus interviews, we noted that these frustrations and misunderstandings were the result of unclear expectations or over-estimation of the service that the students were able to offer. These limitations of the students and the expectations of the collaborating NGO partners must also be balanced. In projects that are clearly-defined, it was usually the case that the students felt rewarded by their efforts, and the NGOs and their beneficiaries were positively impacted.

6. Conclusion

We have presented the planning and structure of a short-term, large-scale overseas service learning project that involves mainly first and second year college students. Our experience shows that the planning and execution of projects of this nature and scale raises specific challenges with respect to the level of preparedness of the students, their capacity and ability to perform and the impact upon the service sites. We have described in detail the various solutions that we have implemented to address these issues, and analysed the impact of the course upon the students’ learning outcomes. Our results show that the majority of the students, the NGO partners and the beneficiaries are positively impacted by the experience.

References


COLLEGE STUDENTS, FACULTY, INSTITUTIONS AND COMMUNITIES, 1993-2000. THIRD EDITION. VANDERBILT UNIVERSITY.


Using Science Learning Partnerships to Enrich and Internationalise Student Experiences

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Abstract

The Glasgow Caledonian University-University of Massachusetts Boston International Science Learning Partnership has promoted curricular internationalisation through 137 Year 1(Freshman) students exploring challenging bioscience and computing issues in international study visits. Students used 'a mission to Mars’ metaphor, encouraging collective responsibility in overall achievements, benefiting from the UMB ‘Freshman Success Community’ approach. Students used 'shared learning' approaches, overcoming time zone differences, scheduling group video sessions, and collaborating through common delivery tools. Collective research work, included wikis on personalized medicine, stem cells, carcinogenesis, robotics programming and enquiry visits to scientific and engineering facilities developing autonomous learners, boosting self-confidence and increasing appreciation of international collaborations through global citizenship. 97% of students wanted to be part of future international initiatives whilst 96% wanted this unique partnership to continue. Freshmen engaged in learning experiences in an inspirational and life-changing manner through cooperation between like-minded institutions, achieving mutual goals of social inclusion and internationalising the student experience for the common good.

1 Introduction

Enriching the student experience is a laudable aim for any higher education endeavour. In today's globally networked, always on society, achieving this through internationalisation of the student learning experience, bringing with it increased understanding of different cultures, educational and professional systems and societies is particularly appropriate (Altbach and Knight, 2007). Whilst the numbers of international (non-EU) students in UK higher education have increased from 8-12% from 2002-3 to 2010-11, this increase is predominantly in taught postgraduate programmes, especially in engineering and technology (149%), maths (155%) and subjects allied to medicine (228%; Universities UK, 2012). Achieving internationalisation appears less easy for undergraduate programmes and especially so for Year 1 (‘Freshman’ students (Uprcraft et al., 2008).

2 GCU-UMB International Science Learning Partnership

Glasgow Caledonian University (GCU) and the University of Massachusetts Boston (UMB) share a widening participation and social inclusion mission, each with a majority of first generation university students, have investigated the use of science learning partnerships to enrich and internationalise the learning experience for students in a range of disciplines from the biosciences, pre-medical studies, chemistry, computer science and electrical engineering. The GCU-UMB International Science Learning Partnership has achieved this through:

Promoting social inclusion and widening participation in international learning experiences

Internationalising curricula

Promoting scientific and cultural exchange

Increasing mutual understanding of best practice and educational developments

Contributing to the social inclusion mission and common good of both GCU and UMB

In Semester 1 of session 2011-12, support from a Prime Minister's Initiative/British Council Award enabled 39 Year 1 students from GCU Department of Life Sciences and UMB College of Science and Mathematics (CSM) to participate in international learning partnership activities in pre-medical studies and the biosciences. Students were involved in a range of voluntary learning activities, based on the successful 'Freshman Success
Communities' (FSC) model as implemented in UMB CSM. The FSC model includes elements of other student success community approaches (Tinto, 2000; 2003), using self-selected students who share common goals (Anderson, 2008), for example in wanting to gain entry to US postgraduate entry medical schools. FSCs place emphasis on a co-enrolment cohort model, promoting bonding, a sense of identity and enquiry amongst small cohort groups, of up to 24 students, and are intended to help students start on-track and stay on-track to complete their studies in four years. UMB CSM FSCs have proven highly popular and successful, with a 459% rise in numbers of students involved over the last five years, in 12 FSCs based on subject disciplines from bioscience to computer engineering, or intended vocations, such as pre-medical studies, serving 60% of eligible CSM Freshmen in 2012-13. In contrast, GCU whilst actively promoting the benefits of an internationalised student learning experience through a refreshed international strategy, is not yet operating student success communities. In Semester 2 of session 2012-13, Scottish Government Saltire Scholarships for Outward Student Mobility support contributed to a widening of the partnership to also involve computer science and engineering students, with 98 Year 1 students participating. The majority of GCU participants were from Scottish Index of Multiple Deprivation 20/40 quintile postcodes or were first generation university attendees, while the majority of UMB participants were from Pell grant eligible or other similar households (Harper et al., 2008).

All students participated voluntarily in extra-curricular classes. Participants were encouraged to contribute fully through the adoption of a 'Mission to Mars' philosophy, to the attainment of learning partnership team goals regardless of whether they were amongst the 34 ‘travellers’, physically visiting Glasgow or Boston for an intensive 1 week period, or 'hosts'.

3 Learning Partnership Activities

3.1 Community establishment

Students came together through introductory 'meet and greet' wikis and video-casts. These were soon supplemented, at the students suggestion, using blogs, digital media and a range of social networking tools, including Facebook (Anderson and Chi-Cheng, 2009). Through a series of weekly community tutorials, small groups of 4-6 students from both institutions addressed key issues centred around 'science and today's headlines', including the use of stem cells, the potential of personalized medicine, and environmental toxicology. Additional sessions were organised by student groups. Students were given full responsibility for organising contacts with trans-Atlantic peers, having to negotiate task allocations, overcome time differences and develop collaborative approaches. This approach was considered to be part of encouraging learner confidence and autonomy (Cross, 1998).

3.2 Community and role development

Since requests for involvement outstripped ‘traveller’ places from available resources, students were selected for ‘traveller’ or ‘host’ roles based upon agreed selection criteria including contribution to community building tasks, a written or digital case for support and the ability to benefit from first time travel to the partner country. Students unable to travel were encouraged to continue participating through organisation of learning and cultural schedules as 'host leaders'. Students continued to contribute, regardless of their role, developing a strong sense of community ideals and identity amongst groups of typically 18-year olds. Series of learning objectives appropriate to the Year 1 programmes being undertaken were identified, with opportunities for students to demonstrate their learning through assessed activities in modules designed in wherever possible.

3.3 International study visit activities

Groups of up to six students travelled, unaccompanied to the partner city for international study for one week. The benefits of having already firmly established and student-led, study groups were realised as all students involved, regardless of whether travelling or hosting, felt a real sense of group identity. Programmes of participation in scheduled lectures, laboratory skills practical sessions and student-programmed robotics workshops using similar systems in Boston and Glasgow were complemented by cultural development and social activities. Students visited globally leading research centres, medical science facilities, computer science and engineering facilities, scientific spin-outs, biotechnology companies and
enterprise innovation centres as part of the fact-finding for their group tasks. Many of the formal and cultural events were led by the 'hosting' students, who were also involved in contributing to communal wikis and social media activities, including video diaries. All students received notifications of communal work updates, which could be made at any time and were thus enabled to make a full contribution to the team success of the partnership. By involving travellers in formal learning classes at the host university, students gained an appreciation of how learning in the partner country was organised, of typical academic workloads, assessment styles and laboratory practices. Students were involved in a wide range of tasks, including learning to programme robots, bioscience and maths skills development. By interacting with globally important research centres, novel technology and spin-out companies, students were able to gain in increased appreciation of the role of innovation in science and technological business development and entrepreneurship.

4 Evaluations of learning partnership activities
Student comments on the partnership activities were overwhelmingly favourable, including:

'An inspirational and life changing experience!'
'A fantastic experience - an amazing array of lessons learned'
'Increased my understanding of international education'
'Has completely changed my life. I now don't fear making a big change and am much more confident'

Responses from a post-experience survey on how the partnership activities had impacted on students' learning experience and international perceptions, are shown in Table 1. Students generally regarded the partnership activities as helping the development of independence and self-reliance, although this was accentuated to a lesser degree in UMB students involved in Semester 2, rather than Semester 1 activities. This may reflect other FSC independent learner development activities undertaken earlier on in the academic session. GCU students were particularly appreciative of being given the opportunity of participating in an international science learning partnership within a few short weeks of entering university. Students were highly appreciative of the opportunity to develop intercultural skills, and the ability to communicate with students and staff from other countries. Overall, 97% of students expressing a preference wanted to be part of future international learning partnerships, with 94% wanting to share their experiences with fellow home students and 96% being willing to help organise future international learning partnership activities.

Students from the 2012 wave have demonstrated their commitment to progressing the learning partnership further through involvement in receptions for 2013 wave students in both Glasgow and Boston, whilst two GCU bioscience students have returned to UMB to study for a full semester in session 2012-13. Amongst 2011 entry UMB CSM FSC students as a whole, 89% were retained into the second year of their studies, as compared to 79% of non-FSC students. Amongst 2011 GCU bioscience students participating as either travellers or hosts, 100% passed in the relevant biology modules, with 70% exceeding their class average mark, with a mean incremental gain of 4% as compared to their peers. Overall performance data for 2012-13 are not yet available.
Table 1: Student Evaluations of International Learning Partnership Activities

<table>
<thead>
<tr>
<th>Statement</th>
<th>%age</th>
<th>Students</th>
<th>Agreeing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participating in the International Learning Partnership .....</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Helped me develop independent study skills</td>
<td>75</td>
<td>89</td>
<td>44</td>
</tr>
<tr>
<td>Helped me become more independent and self-reliant</td>
<td>70</td>
<td>100</td>
<td>51</td>
</tr>
<tr>
<td>Increased my understanding of other cultures</td>
<td>100</td>
<td>100</td>
<td>85</td>
</tr>
<tr>
<td>Increased my understanding of international science collaborations</td>
<td>90</td>
<td>89</td>
<td>54</td>
</tr>
<tr>
<td>Made me think about joining future international exchanges</td>
<td>100</td>
<td>100</td>
<td>85</td>
</tr>
<tr>
<td>Helped me with the transition to University life</td>
<td>80</td>
<td>100</td>
<td>28</td>
</tr>
<tr>
<td>Gave me the opportunity to develop intercultural skills</td>
<td>100</td>
<td>89</td>
<td>80</td>
</tr>
<tr>
<td>Gave me confidence in communicating and interacting with students</td>
<td>100</td>
<td>100</td>
<td>87</td>
</tr>
<tr>
<td>Gave me confidence in communicating and interacting with staff</td>
<td>95</td>
<td>100</td>
<td>69</td>
</tr>
<tr>
<td>Introduced me to new technologies</td>
<td>85</td>
<td>100</td>
<td>47</td>
</tr>
</tbody>
</table>

Key: PreMed: PreMedicine Level 1, Bio: Bioscience Framework Level 1, Comp: Computer Science Level 1, Eng: Electrical Engineering Level 1 participating students.
UMB: University of Massachusetts Boston, GCU: Glasgow Caledonian University

5 Discussion
By building upon the successful track record of the Freshman Success Communities at UMB, the science learning partnership has identified and provided conditions for new students, in unfamiliar cohort groups, to gain motivation and achieve academic success, enabling them to start and stay on track for their desired degree programmes. This is consistent with the features of other student success communities (Kuh et al., 2010) and provides evidence for approximately 10% better retention amongst UMB students and a 4% performance uplift in GCU biology modules. Hotchkiss et al., (2006) also report performance and retention uplifts through freshman learning communities. The reasons for the success of the partnership include the effectiveness of the interventions to develop autonomy and a sense of responsibility amongst learners new to higher education (Oxford, 2008) and a clear commitment amongst members of the cohort groups (Taylor et al., 2003) to ensuring the success of the international learning experience, regardless of whether individual students were travellers or hosts. This commitment appears to have remained strong amongst the second session participants, who additionally gained by mentoring from first session
partnership veterans. This aspect of peer learning reinforced the sense of cohort identity and mutual support amongst participants, having been a consistent feature of the UMB FSC experience over five years. The timing of the physical study visits may be more important than originally thought, with semester 1 student perception data being slightly more positive than for semester 2 students amongst the computer science and electrical engineering communities at least, from UMB. An alternative explanation however, may come from the greater degree of challenge arising from doubling the numbers of travellers, the numbers of student success communities involved and a widening of the discipline base to encompass computing and engineering as well as the pioneer bioscience groups. What remains clear, however, is that participants found the scientific partnership activities highly beneficial, worthwhile and enriching. The experience has clearly added value to the learning journey of the participating students and, based upon the available performance data, increases the likelihood of future academic and career success (Zhao and Kuh, 2004). Academic staff involved in establishing the partnership have gained from a more highly developed mutual understanding of the relative strengths and weaknesses of existing learning strategies and environments (Altbach and Knight, 2007). The enrichment of the partnership experience is heightened by the involvement of two universities with similar goals and missions, making the development of shared understandings easier. Participation in the partnership has clearly added value to the student learning experience, whilst delivering long-lasting gains, such as greater learner confidence and autonomy. These attributes will benefit students not just in their undergraduate studies, but in their graduate careers too.

6 Conclusions
The GCU-UMB International Science Learning Partnership has over two years of activities demonstrated the potential of a student success community model to deliver benefits for Year 1 ‘Freshman’ student learning. Participating students realized a range of benefits including:
- Increased learner independence and autonomy
- Greater appreciation of international scientific perspectives
- Improved research & presentation skills
- Greater motivation to acquire and use knowledge
- Enhanced self-confidence
- A stronger sense of enquiry

Wider benefits included raising the profile of international scientific endeavours amongst the Year 1 (Freshman) student population who might not otherwise have been exposed to them, enhancing student engagement and communications skills. Developing these benefits aligns closely with the desirable attributes sought by many institutions in their science and engineering graduates (Gartland and Wood, 2006). The FSC approach encourages the development of a range of skills amongst cohort groups and succeeds in promoting enhanced student performance. This helps to engage students by demonstrating how international science education cooperation can promote research-teaching linkages, student performance, retention and the attainment of graduate attributes, the GCU-UMB International Science Learning Partnership has contributed to meeting our institutional goals of social inclusion and promoting the common good.

An evaluative video about the GCU-UMB International Science Learning Partnership is accessible at:
http://www.youtube.com/watch?v=i1S_Ad8Vijk

7 Acknowledgements
The authors gratefully acknowledge support from the Prime Ministers Initiative 2/British Council Award, Scottish Government Saltire Scholarships Outward Student Mobility Award, the Davis Foundation and Mr Arthur Mabbett, without which the international study visits would not have been possible. In kind and financial support from both universities is gratefully acknowledged. The enthusiasm, cooperation and support of staff and students from GCU and UMB played an essential part in the international learning partnership.

8 References
Tinto, V (2000) What we have learned about the impact of learning communities on students? Assessment Update 12(2), pp 1-12
Transfer of Technology to Developing Countries

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Abstract: The School of Health Nursing and Midwifery has built partnerships with the major nursing and medical institutions in Malawi, Africa since 2006 and to date has provided expertise to develop a maternity unit, given consultancy to curriculum development and has delivered 3 major international development projects funded by Scottish Government International Development Grants. The paper is focused on the most recent development which is built on the previous 2 grant funded projects and which represented the most ambitious one, successfully implementing advanced technology into the development of a designated multi-professional skills lab at the College of Medicine in Blantyre, Malawi. The approach to international development by the School meets the aims of the Cooperation Agreement between Scotland and Malawi (Scottish Government 2005) based on facilitating expertise and sustainability. In essence the project seeks to ‘train the trainers’ of students and practitioners of medicine, nursing and other professions now and for future generations.

Background

The School's experience in Malawi originated from the partnership of the former Bell College with the University of Strathclyde. The initial exposure to international development work derived from the University of Strathclyde's project which commissioned an educational maternity unit adjacent to Kamuzu College of Nursing in Lilongwe. Following this development the Chief Nursing Officer for Scotland sought assistance from the School to give consultancy in designing the BSc Nursing/Midwifery Programme which received commendations at validation in 2008 at the University of Malawi. Through both engagements with Malawian colleagues it was apparent that the curricula at Kamuzu College of Nursing has a number of challenges, notably a low student progression & retention rate; an inadequate educational infrastructure and at a time when the Ministry of Health sought to increase student commissioned numbers three fold. Capacity of healthcare professionals in Malawi was estimated at 23% by the World Health Organisation therefore the need to have successful curricula at all academic levels was imperative to build an effective healthcare system. Learning and teaching approaches were based on a didactic model that was essentially face to face teaching and relied almost entirely on traditional examination methods as the assessment instrument. Where skills teaching was apparent it was under resourced and relied on obsolete basic mannequins without any underpinning educational methodology.

The School secured Scottish Government International Development Grants from 2006-8 (Project SM9) which developed 4 nursing skills labs at Kamuzu College of Nursing (KCN) and Malawi College of Health Studies (MCHS) across the Lilongwe, Blantyre and Zomba regions of Malawi. The nursing skills labs are fully equipped with patient simulators/part task trainers and associated medical equipment for nursing and midwifery education at both undergraduate and postgraduate level. All skills labs are operationally managed by a clinical lead and skills facilitator and cascade training in clinical simulation techniques continues to develop. The second project (SM10) established a Practitioners Support Programme at Kamuzu College of Nursing which is now part of the KCN Academic Portfolio and is currently delivered on site at Kamuzu Central Hospital and Bwaila Hospital in Lilongwe to qualified nurses and midwives.

Development of the Multi-Professional Skills Lab

Clinical Simulation

Scotland is in the unique position of being the only country in the world with a national strategy for clinical skills launched by the Minister for Health (NHS Education for Scotland 2007), with concurrent guidance published by the Nursing and Midwifery Council (NMC
The national guidance facilitated a uniformed approach to skills delivery in Scotland informed by a robust evidence base (Issenberg, McGaghie, Petrusa, Gordon & Scalese (2005), whilst the professional guidance permitted greater flexibility and integration of clinical simulation methodology into the pre-registration nursing curriculum. In response to the national and professional guidance the School developed its own Clinical Skills Strategy in 2010 and implemented a ‘state of the art approach’ across all pre-registration programmes.

The School is renowned for the clinical simulation facilities that replicate the entire range of healthcare and community environments across the four campuses ensuring equity of the student experience irrespective of campus location. The expertise in clinical simulation as a learning and teaching tool in itself and the successful application of technology to the student learning experience has resulted in commendations at quality assurance reviews. The School frequently gives consultancy to other Universities seeking to develop more innovative and contemporary approaches to the development of clinical skills in nursing, other professions and medicine.

The techniques of clinical simulation whilst greatly enhanced by impressive technology which can replicate accurate anatomical modeling and the range of physiological responses through sophisticated software and monitor the student's responses in real time is never the less diluted if the appropriate methodology is not applied. The School has adopted the Cognitive Apprenticeship model which is adapted from the more traditional apprenticeship model and is based on the premise of task visibility. Thus in addition to performing an observable task, the focus is on the cognition that precedes and is evident in the task, that is 'thinking must be visible'. The imperative is also on teaching authentic skills in a socio-cultural context in order for the skill to be applicable and transferrable in the real world (Wooley & Jarvis 2007). The cognitive apprenticeship approach places emphasis on six critical features; modeling, coaching, scaffolding, articulation, reflection and exploration (Collins, Brown& Holm 2004). These features are therefore central to clinical simulation, learning teaching and assessment and giving a balanced approach which supports the current evidence base that the best mannequin in the world is useless without educational underpinning with a robust teaching methodology (Dieckman, Phero, Issenberg, Kardong-Edgren, Ostergaard & Ringsted 2011).

Collaborative Development of the Multi-Professional Skills Lab

The aim of the most recent Scottish Government International Development Grant awarded in 2009 was to establish a multi-professional skills lab at the College of Medicine in Blantyre and thereby progress the original 2 projects. The two Partner Institutions, KCN and MCHS, and the College of Medicine (COM) had expressed interest at that time for a more intensive approach to clinical simulation training and access to more advanced technology (Advanced Human Patient Simulators (AHPS)) in a multi-professional context. The location of the multi professional skills lab was negotiated in the new building at the College of Medicine and represented the ideal location for all 3 partner institutions to collectively access clinical simulation. The crucial feature of this development was that the building was internet enabled and could potentially support a live video link to complete the learning and teaching approach and facilitate ongoing development between the institutions in Malawi and in Scotland.

Facilitator Debrief and Peer Review

In addition to the procurement of clinical simulation equipment, mannequins and associated medical/nursing equipment, an audio visual system is absolutely crucial to the cognitive

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66 The Nursing and Midwifery Council guidance permitted 300 hours of simulated practice in the 3 year pre-registration programmes as an adjunct to practice learning.

67 Hamilton, Paisley Ayr and Dumfries Campuses
apprenticeship methodology. Facilitator debrief is accepted as the key element of simulated practice leading to effective learning (Issenborn et al 2005), and the quality of debrief crucial as it represents the single most important factor that impacts directly on the consistency and quality of student learning.

The favoured approach at the School of Health Nursing and Midwifery is Scotia Medical Observation & Training System (SMOTS) a high end audio visual system designed for facilitator debrief and peer review. Whilst students engage in holistic patient scenarios the events are filmed on SMOTS and facilitator debrief/peer review is applied immediately at the conclusion of the scenario. In this way students are offered constructive feedback and can accurately learn from mistakes/omissions in a safe and supportive environment. Effectively the student experiences the reality of real life practice (fidelity) and human factors crucial to competent clinical practice. The experience is not just one of acquisition of the range of technical and soft skills, but central to the method is the demands of team working and the development of professional skills and attributes.

Developing the Multi-Professional Skills Lab

The School worked on the premise that the partnership was well established with all 3 partner institutions through the previous projects and that a known effective approach to clinical skills development would not only enhance the curricula but most importantly would be entirely transferrable to a developing country. The latter concept was one in which the project team had every faith based on their own extensive experience in the UK and years of collaboration with Malawian educators. The project team had a firm belief that the minimum standard for resourcing healthcare education and preparation of students/practitioners in Malawi was comparable to UK standards. The School's own experience of this approach was one of increased motivation in educators and improved evaluations from students with both of these outcomes echoed by the Partner NHS Boards who reported students more skilled clinically and developed professional behaviours more rapidly.

Train the Trainers Programme (Summary)

The skills lab was set up over the first week with assistance from the College of Medicine, the mannequins were assembled and calibrated and SMOTS cameras built with internet enablement initially active using Wi-Fi. Commensurate with the Cooperation Agreement equipment that could not be sourced in Africa was air freighted to Malawi. In the main the simulation equipment was purchased from Laerdal Ltd in Norway and the Maternal & Neonatal simulator from Gaumard Scientific in the US. Other necessary equipment such as beds, electrical and computing was purchased in country in Malawi effectively contributing to the African economy.

A total of 50 Malawian multi-professional educators/clinicians completed the training programme using a train the trainers’ approach over April 10 and August 11 with a split of approximately 60:40 Medicine:Nursing. The approach of the project was one of open access to the opportunity for all healthcare practitioners irrespective of gender. Ultimately, the attendance of female healthcare professionals was 42% and predominantly nursing.

The training schedule for clinical simulation, a 3 day programme, commenced with overview of the cascade approach, clinical simulation development in Malawi since 2007 and an introduction to the evidence base supporting clinical simulation as a learning and teaching methodology. The theoretical session was followed by a more practical introduction and familiarisation with the basic life support mannequins, advanced life support baby and Intravenous (IV) training arms which included all the technical aspects of assembly, maintenance, hygiene and operation. The training thereafter was dedicated to the operation of the slightly more complex Megacode Kelly with VitalSim control. All training days concluded with time allocated for further questions and practice with the mannequins. The second training day was focused entirely on SimMan (2G Advanced Human Patient Simulator) advancing the expertise from low-fidelity simulators to medium/high fidelity. A
A comprehensive approach demonstrated mannequin set-up, calibration and testing in preparation for teaching. The candidates were then encouraged to explore the multiple functions of the mannequin and appreciate control functions using the laptop software in manual mode. Thereafter candidates were competent to practice autonomously and facilitate simple teaching sessions, some acting as facilitators and others as students. Thereafter candidates had the confidence in their own ability to independently control SimMan using pre-programmed patient scenarios and begin the sequence of building their own unique patient scenarios. The approach created a great deal of excitement and enthusiasm, with a number of creative scenarios, highly pertinent to their practice, being designed. It was then crucial to demonstrate to the candidates the mannequin's integrated video and debrief programme and SMOTS capability. The facilitator debrief process was appreciated as considerably enhancing the student experience, consolidating learning and giving an accurate perception of competency. It was recommended that all of the candidates took the opportunity to download the SimMan software programme to their own laptops as this would allow limitless access to practice, both in using the software and in creating their own teaching scenarios.

The final training day commenced with an introduction to eLearning - MicroSim™ digital gaming software where 40 patients are assessed and treated using evidence based practice. Candidates found the eLearning to be of very high quality but more suitable for diagnostics and therapeutics in developed countries. A limited stock of software had been purchased as introducing MicroSim™ was viewed as a pilot within the project. In addition, a limited stock of licenses for Authentic World SafeMedicate™ eLearning (Medicine and Dosage Calculation and Assessment System) were introduced into the training programme but mainly to allow for review of approaches to numeracy/medicine management in the Malawian undergraduate curricula.

Thereafter the programme switched to induction on the remaining medium/high fidelity mannequins, with the focus moving from Adult to Obstetric and Neonatal simulation. This comprised of the SimNewB (Advanced Human Neonate) followed by the NOELLE Obstetric and Maternal simulator. Maternal vital signs and simulated labour were demonstrated using NOELLE and the candidates were once again very impressed with the capabilities of the mannequin as well as its range of functions. Candidates were advised that whilst the facilitator could operate NOELLE from all technical and simulation aspects, more advanced Obstetrics emergencies would require obstetric/midwifery expertise.

The training programme was completed with a final opportunity for questions and the opportunity to reflect on simulation teaching practice. Equipped with a new multi-professional skill lab and the requisite training candidates were then confident to begin the process of developing the methodology/techniques in their own curricula.

Inter-Professional learning

Inter-Professional Education is now a global standard (World Health Organization 2011) for all healthcare educators as it is known that where collaboration increases between health professionals this does improve patient outcomes and reduce adverse events through a better understanding of other workers' inputs and roles. Hence the projects deliberately sought to train the Malawian educators/clinicians in an inter-professional context with clinical simulation known to both engage and be clinically interesting whilst being relevant to the future needs of the workplace. Indeed, characteristics known to contribute to a quality inter-professional learning experience include where learning is interactive, experiential, reflective and common across the professions and where participants have the chance to compare and contrast their roles.

Conclusion

The project has now completed in respect of an operational facility with a robust system of cascade training and has been a very successful project. The development of a multi-professional skills lab in Malawi, Africa was an ambitious though very contemporary vision and the completed facility is impressive. Building workforce capacity is a key component of
the Scotland Malawi Cooperation Agreement and in the context of the project, this is focused in the main on increasing educational provision for practitioners of healthcare. In particular, the project is aligned with specific maternal and neonatal outcomes, training and curricula for the Emergency Health Package (EHP), development of a national Continuing Professional Development programme and enhancement of curricula in all healthcare provision.

The project has met the major aims identified in the 2008 grant application and the multi-professional skills lab enables contemporary approaches to under/post graduate education and professional development that will be enhanced by continuing collaboration among the three Partner Institutions. The project was deliberately based centrally to optimise access for all three Partner Institutions however, the main deciding factor was that technology could be supported effectively at the College of Medicine. This does not negate that a skills lab with this profile cannot be developed in Lilongwe or at Kamuzu College of Nursing new Blantyre Campus scheduled for completion in 2013. The advantage of the current location is in the success of the skills lab with the level of technology employed and how this acts as a model development for the future. This does not negate approaches to 'remote and rural' training and indeed all equipment was deliberately procured to be mobile and give maximum flexibility. Future decision making in Malawi can be innovative to meet healthcare needs and be culturally sensitive.

References


University of the West of Scotland, School of Health Nursing and Midwifery (2010) Clinical Skills Strategy, UWS Scotland


Creative educational development - an enhancement lead approach for institutional change

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ABSTRACT:
Research universities often face challenges in spurring the enthusiasm for learning and teaching among its academic staff. While research efforts are visible and rewarded, activities pertaining to learning and teaching are less so. Many leaders are primarily researchers at heart and their priorities often follow that. Consequently, the drive to enhance learning and teaching is often variable within an institution and depends on individual enthusiasts, whose achievements often remains unrecognised and locally contained. The scholarly sharing of knowledge that comes natural in the research setting is less developed in the area of learning and teaching. How can an institutional approach to enhancement be designed so that it makes good practice visible to leaders and shared across the university? This paper describes an attempt to stimulate the development of learning and teaching at a research university by a combined bottom-up and top-down approach, the Creative Educational Development (CrED) Project 2010-2012.

1 Background
Research universities sometimes face challenges in spurring the enthusiasm for learning and teaching among its academic staff. While research efforts are visible, highly valued and rewarded, activities pertaining to teaching and learning activities tend to be less so. Many leaders, whether on the departmental level or higher, are primarily researchers at heart and their priorities often follow that. This difference in esteem may be further pronounced by the increasing focus on rankings and funding schemes based on research assessment exercises. As a consequence, the drive to enhance learning and teaching is often highly variable within an institution and depends on individual enthusiasts, whose achievements often remains unrecognized and contained in the local environment. How can an institutional approach to enhancement be designed so that it makes the good examples visible to leaders and shared between colleagues across the university?

This paper describes an attempt to stimulate an increased focus on learning and teaching at a research university by a combined bottom-up and top-down approach, the Creative Educational Development (CrED) Project 2010-2012. The paper will describe the challenges and opportunities using this approach, its effects and lessons to be learned.

2 The idea behind the project
In 2007, Uppsala University (UU) carried out a university wide self-initiated research evaluation- Quality and Renewal 2007. The evaluation was the first of its kind and sparked a wave of research evaluations at Swedish universities. (In Sweden there are (yet) no nationwide research evaluations corresponding to, for example the British Research Assessment Exercise, leaving room for universities’ own initiatives). The objective of the Q&R was to identify strong areas of research - "golden nuggets" - as well as promising emerging constellations of researchers. The evaluation was carried out by 25 different expert panels with in total 200 experts from some 20 countries, and was combined with detailed bibliometric data. The results were used as a basis for strategic decision making and, timely
enough, UU received some extra funding from the government that supported the realisation of different actions informed by the outcome of the evaluation. The exercise was repeated in 2011.

After the completion of the first Q&R, the idea of doing a similar comprehensive evaluation of the education at UU materialised. There were voices - among them students and committed teachers - that stressed that the need for actively putting educational issues at the forefront is bigger than focusing on research, since highlighting the latter comes natural at a research university.

The immediate idea was to carry out a traditional review of study programmes using external subject experts as critical friends, i.e. a design that corresponded to the Q&R exercise. When discussing this tentative idea with the leaders at different levels and academic staff, however, there was quite a lot of opposition stemming from evaluation fatigue. In addition to the newly finalised Q&R 2007, the Swedish National Agency for Higher Education had just about launched their new outcomes-oriented system for nationwide evaluation of higher education, focussing on subject areas and study programmes. There was a strong wish among the academics to be able to concentrate on development - to realise actual change - rather than putting time and effort into yet another evaluation.

These reactions prompted rethinking. To secure buy-in - or least acceptance - we needed to design an approach that would support development and be light touch. We decided to build on something that was already in place, the Guidelines for Teaching and Learning at Uppsala University that had been in effect since 2009. The guidelines had been developed through an elaborated bottom-up process with a high degree of ownership by academic staff and students. Whatever should be done, it should rest on these guidelines and contribute to their implementation.

We also found that the Scholarship of Teaching and Learning (SoTL) movement provided useful guidance for the mind-set:

"The scholarship of teaching and learning goes beyond scholarly teaching and involves systematic study of teaching and/or learning and the public sharing and review of such work through presentations, performance, or publications" (McKinney, 2004).

The scholarly sharing of knowledge, experience and insights that are most natural in the research setting tend to be less developed when it comes to the area of learning and teaching, although it would most certainly push development through collective knowledge building. The chosen approach should therefore contribute to an increased visibility and dissemination of good practice within UU - across boundaries constituted by organisational structures and subject fields.

The third pillar was that of inviting international peers as critical friends, to get a wider - and potentially alternative - perspective on UU's approach to the development of the quality of teaching and learning.

Based on these starting points, the details of the CrED Project 2010-2012 were planned in dialogue with the University Management and the Quality Committee.

## 2 The aim and design of the project

The overarching aim of the CrED project was to contribute to the realisation of the Guidelines of Teaching and Learning at UU. The implementation of the guidelines was - together with the University's strong and broad subject competence - expected to contribute to the further enhancement of the quality of UU study programmes. As mentioned earlier, an important aim of the CrED project was to shed light on good examples of educational development and to facilitate the exchange of experience regarding developmental work that is being done in various parts of the University.

A brief description of the design of the CrED Project 2010-2012 is found in Box 1. During the first phase of the project, 2010-2011, the faculties pursued developmental work in relation to
the Guidelines. This work focused on the areas in the Guidelines that the respective faculty board singled out as priority areas in their operational plans for 2010, including: Employability Generic skills Constructive alignment and student assessment Active student participation in teaching and learning Recognition of teaching

Moreover, all faculties were expected to pursue the development of pan-faculty study programmes and research-teaching linkages respectively. The themes based approach was inspired by the Enhancement Themes in the Scottish higher education sector, i.e. it was expected to contribute to the "collective development of new ideas and models for innovation in learning and teaching" www.enhancementthemes.ac.uk/enhancement-themes. In this case the sharing was however limited to one institution, while the Scottish Enhancement Themes approach is national. The development work within faculties was supported by various pan-University activities, such as so called CrED seminars relating to the prioritised areas. Each seminar had the following features:

- Invited external experts in the field who share their knowledge and experience
- Examples of concrete initiatives at UU
- Student perspectives on the issue at hand

Special Interest Groups SIGs, or theme groups, was another component of the project. The idea behind these groups was that directors of studies, teachers, and students with common interests in a particular area of educational development would meet across faculty boundaries, exchange experience, and enhance their knowledge together. Theme groups were meant to meet in small formats (10 - 20 people) to discuss concrete educational development. Initiatives for theme groups could be taken by teachers or students, and the CrED project had some funding available to facilitate this work, for example in the form of refreshments at meetings, help with advertising seminars, and help with financing invited guests. The far most active theme group - Active Student Participation - was started by a history student. In addition to arranging a series of seminars on the topic, an anthology was produced within the framework of the CrED project (Gärdebo and Wiggberg, 2012).

- The institution-wide guidelines of T&L as a starting point
- Faculties’ prioritisation of areas of development in relation to the guidelines of T&L (2009)
- Two years’ time for carrying out self-directed development projects within the prioritised areas (2010-2011),
- University wide seminars and Special Interest Groups (SIG) on themes pertaining to the prioritised areas
- University wide follow up of the development projects (2012), making all efforts visible and possible to share,
- International peer review of 1) the guidelines of T&L, 2) the outcome of the development projects, 3) the support provided for the development projects and , 4) the CrEd-project itself (2012).

**Box 1. A brief description of the design of the Creative Educational Development (CrED) Project 2010-2012**

The regular support functions, both faculty based and centrally at the University, were also available to support the development initiatives up on demand (See box 2).
• **The Division for Development of Teaching and Learning** providing opportunities for professional development of teachers in learning and teaching.
• **The Office for Leadership and Organisational Development** providing support related to leadership, individual, group and organisational development pertaining to both research and learning and teaching.
• **Uppsala Learning Lab** disseminating knowledge about how IT can be used in learning and teaching and in research projects.
• **The Unit for Quality and Evaluation** coordinating the quality work at UU and providing results from university-wide evaluations as a basis for further development, and general support in quality enhancement initiatives.
• **The Council for Educational Development at the Faculty of Science and Technology** providing coherent support adjusted to subject-specific needs.

Box 2. The regular support functions at Uppsala University.

In 2012, the faculty boards were asked to report to the Vice-Chancellor what their work with the priority areas had resulted in. These reports were to be included in the documentation underlying the review by the international panel, but they were also supposed to contribute to the dissemination of good practice across the university. The reports were expected to be in abstract format (see Box 3 for their outline), and the faculty boards were asked to review them and comment upon their further implementation. Upcoming developmental work to be given priority was also to be reported. The central support units were also asked to report their contribution to educational development.

The panel consisted of nine international peers, representing seven countries altogether. Five of the panel members were from the Matariki network, two were peers from Swedish institutions, and three were international experts - two from Scotland and one from the UK. The panel paid a first visit at UU in the fall of 2011, where it got acquainted with the University and some on-going development projects, and provided feedback on the suggested design of the evaluation in 2012. In October 2012, the panel returned for its second and last visit. Before that meeting, the panel had access to the reports described above.

Based on the documentation and the site visit, the panel was asked to provide feedback on 1) the Guidelines of Teaching and Learning at UU, 2) the outcome of the development projects, 3) the support provided for the development projects, and 4) the CrED-project itself.

1. What did you accomplish?
2. Why did you choose to do what you did?
3. How did you go about your work in concrete terms?
4. What were the results?
5. Who and roughly how many people have been involved in the developmental work in some way or other?
7. Advice to others wishing to do something similar.
8. Name of person to contact (in case there are questions from colleagues wishing to do something similar)

3 The outcomes of the project

The bottom-up-element of the project meant that the bulk of the developmental work that was reported within the framework of CrED would have taken place without the project. If not for the CrED project, however, many good ideas and valuable experiences from local work would probably have remained hidden within faculties and departments. Through university-wide seminars, theme groups, and the follow-up, the project contributed to a greater exchange of experiences and ideas among the disparate parts of the University. Efforts to
pursue educational development at the University became more visible. What's more, the project provided an international perspective on these efforts. As summarised by the panel: In a sense, the CrED project has been a starting point. It has elevated the conversation about teaching and learning; leaders have learned about initiatives within their own level and sharing has occurred between areas. Now comes a crucial phase when the work needs to move to a more integrated, more systematic approach but without losing opportunities for bottom-up initiatives to flourish. Working together to achieve this is a challenge for all levels of the University leadership. Obviously, the CrED process had some effect per se, but what else did the Panel notice? According to the Panel, the strengths of importance to the quality of learning and teaching at UU include the strong commitment of all staff and - not the least - students that the Panel met. The panel also acknowledged the many and varied development projects going on throughout the University and the support provided by the support units - both the central ones and the faculty based ones. One support unit, the Council for Educational Development at the Faculty of Science and Technology, was singled out for distinction and was suggested to serve as a model for future work within other faculties. The Panel commended the "hub and spoke" model where staff at this unit was linked to the central unit through their part time appointments. Other faculties are now considering a similar structure. Based on the international panel's reflections and recommendations we also identified five "wake up calls", i.e. areas that are important to the enhancement of learning and teaching, but where the overall level of practice seem to be underdeveloped - although there might be islands of evolved practice. The "wake up calls" included the need for further development of research-teaching linkages, blended learning, peer learning, curriculum reviews and leadership in learning and teaching. We labelled some other areas as "reminders", i.e. with regard to these areas; the general awareness of the need for change is higher, although there is still more to do. These areas include the further development of pan-faculty study programmes, rewards and recognition of teaching, coordination of the support for the enhancement of learning and teaching and further development of the Guidelines for Teaching and Learning. Peer learning was identified as an area for further development all thanks to the student initiative that was mentioned earlier on. The SIG element of the project was used as a way to channel ideas on how active student participation can be further developed, and the Panel concluded that this effort should be built up on: This has been a particularly engaged and committed group that would benefit from central support to bring the various staff and student groups together for the short-to-medium term to ensure sustainably and continuity while working towards the establishment of an embedded Uppsala University model of Supplemental Instruction. The need for further development of leadership in learning and teaching stems from the panels' impression during their second site visit - summarised as follows by the panel: The Panel members were at times surprised by the lack of engagement and commitment to the outcomes of projects by some leaders with projects that had been supported by faculty/domain funding and undertaken by their staff. The Panel would like to recommend that faculty/discipline leaders /.../ prioritise projects that are of strategic importance to the faculty/domain and then ensuring that the staff involved in the project receive an appropriate workload and funding allocation to carry out the project. The Panel would also encourage the recognition of those involved in the projects /.../. The faculties are now asked to report how they will act up on the "alarm clocks" and "reminders". University-wide initiatives are also taken.

4 Some final reflections on the balance between top-down and bottom-up initiatives

UU has a strong and living tradition of collegial decision making. The faculties have a high degree of autonomy and are, in consequence, responsible for the quality in research and education within their respective area. A firm belief in devolved leadership with a high degree of self-governance and associated local ownership is indicative of the culture. The collegial system assures quality through open discussions, questioning and thorough analysis based on deep knowledge about the specific disciplines and the local conditions. This robust academic culture effectively reduces the risk of ill-conceived adoption of management
models focusing on executive and corporate efficiency and responsiveness. There is a minus however as stated by Carlsson et al. (2011):
A commonly mentioned downside of collegial decision-making is, however, consensus paralysis. Hasty, unfounded decisions are avoided, but well-needed decisions may also be delayed or not made at all. There may also be a reluctance to tackle tough and negative decisions, which may affect individual researchers directly. Problems may be left unresolved, since collegial decision-making tends to favour the status quo at the expense of change, problem-solving decisions, risk-taking and future visions. It may also be hard to develop a clear strategic plan and then implement it, as this may include a capacity to reach decisions based on priorities.

The solution may be a well-balanced top-down - bottom-up solution. As put by the Panel: Ensuring a balance between top-down and bottom-up initiatives is difficult to achieve but important to strive for. Bottom-up initiatives are often highly innovative and address concrete issues faced by teachers and students. Top-down initiatives are important to implement policy and to achieve the embedding of coherent and strategic initiatives. Both top-down and bottom-up initiatives and strategies have been features of this project.

The design of the CrED project deliberately aimed for a balanced top-down and bottom-up approach. The framework, i.e. the Guidelines for Teaching and Learning and the decision to evaluate development work were introduced top-down, i.e. decided on by the vice chancellor (although the preparation of guidelines was a bottom-up process). Which development areas to prioritise and how to pursue development were decided on by each faculty except for two areas - research teaching linkages and pan-faculty study programmes - in which all faculties were expected to pursue development. It is noteworthy that at the time for follow up, least development activities were found within the two top-down initiated themes.

The pronounced bottom-up approach constituted a pedagogical challenge however. It was hard to explain what the project added that would not have happened anyway - at least until the follow up in 2012, when the accomplished work became visible and shared, and the panel report was published.

Taken together, the project constitutes a good platform for continued developmental work and has made it evident to ourselves that UU is a development-oriented university that can come together across faculty boundaries to enhance quality in both education and research.

References


The paper reflects Åsa Kettis’ expert opinion, and does not necessarily reflect Uppsala University’s official standpoint in all aspects.
Impact of National Policy

Supporting Flexible Learning Pathways: Developing a National HE Framework for Recognising Prior informal Learning

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Abstract: The Scottish HEI RPL Network is working, cross-institutionally to develop a National Framework for Recognition of Prior informal Learning (RPL) for Scotland's Universities in order to expand and embed RPL to a much greater extent in the Higher Education (HE) sector. A National Framework for RPL is viewed by the Quality Assurance Agency (QAA) as being of strategic importance in terms of helping develop more flexible and learner centred programmes and also in widening access and participation in HE. The need for such a framework aligns with the Quality Enhancement Theme (QET) Developing and Supporting the Curriculum and the Flexible Curriculum sub strand (QAA, 2012b). This work will inform, and be informed by, European developments through the European RPL Network and post-Bologna developments in relation to the recognition of prior informal and non-formal learning.

The paper discusses the development of the national framework, its proposed implementation and locates this initiative within the context of broader national and European developments in terms of the changing HE landscape.

Context of RPL development in Scottish Higher Education: a changing landscape

Scottish Government policy indicates the role of Higher Education in supporting Scotland's economic growth (Scottish Government, 2007a, 2007b, 2011). ‘Regional Coherence’ in particular features prominently in the Scottish Government and the Scottish Funding Council (SFC) agenda with a number of expectations, highlighting universities' roles in supporting the delivery of this plan (this includes 'improved articulation and progression routes for students, including those already in work, which use the Scottish Credit Qualifications Framework (SCQF) creatively to respond to the needs of the region' (Scottish Funding Council, 2011).

There is some excellent practice in RPL and ensuring such practice is adopted as a minimum benchmark across the sector, ensuring that entry to courses happens at Scottish Credit Qualifications Framework (SCQF) levels which properly reflect people's academic and wider experience is a requirement (Scottish Government, 2011, p20).

Whittaker and Brown (2012) furthermore, suggested that RPL is becoming an increasingly significant policy area within the HE sector in Scotland in terms of the drive towards more
efficient, flexible learner journeys. They note the association between RPL and a more flexible, accessible curriculum, also advocated by Whittaker (2011). She highlights the fact that 'the profile of RPL has dramatically increased as a result of the SCQF, which has generated renewed enthusiasm and momentum for RPL since 2005' (p172). This has progressed to learning and development activities not only in formal education, but in the workplace, the community and careers guidance in which creative approaches to the use of RPL within the context of the SCQF are being explored and developed (Whittaker, 2011). The link between RPL and other agendas within HE is also becoming increasingly prevalent in terms of more flexible curricula to attract greater postgraduate recruitment, income-generating Continued Professional Development (CPD) programs developed in partnership with employers, and the development and articulation of employability skills and graduate attributes through a reflective process (Whittaker and Brown, 2012).

QAA Scotland established the Scottish RPL HEI Network in 2008 to share practice in RPL and support collaborative approaches to development and research to drive this agenda forward in the sector. A key focus of the Network activity is to address some of the continuing barriers to the mainstreaming of RPL within institutional activity. The network includes members from across Scottish HEIs and also from the Scottish Credit and Qualifications Partnership, NHS Education for Scotland and the Scottish Social Services Council (Quality Assurance Agency, 2012a). The work of the Network informs, and is informed by, wider European developments in the recognition of informal and non-formal learning via the European RPL Network. The European RPL Network was established in 2010 to provide a platform for countries in the European Higher Education Area (EHEA) to share and learn from policies, practices and RPL development and research. It also supports the building of links and partnerships between EHEA countries at various stages in RPL development. RPL development in Europe is linked firmly to National Qualifications Developments and Lifelong Learning strategy centred on widening participation, workforce development and mobility.

The current work of the Scottish HEI RPL Network, discussed in more detail below, includes cross sector working to develop a National Framework for RPL for Scotland's universities. This aligns to current and future European development in response to the agreement by EU Council of Ministers in November 2012 to adopt the recommendation that all member states should have, by no later than 2018, comprehensive national RPL systems in place. Citizens should have access to the validation of their knowledge, skills and competences, including via the use of Open Educational Resources (OERs) and obtain full or part qualifications through this validation. This recommendation reflects a continuation of a top down approach to RPL across Europe and has been driven by the continuing uneven, irregular and slow development of RPL. The Bologna Follow Up Group reports that:

'Alternative access to higher education (mostly in the form of RPL), currently exists in less than half of the EHEA countries, RPL for progression in higher education studies is possible in a slightly higher number of countries. However, only in 13 higher education systems (out of 47) RPL can be used for access to higher education as well as for progression in higher education studies, in 12 EHEA countries on the contrary no systematic activities related to the RPL in the higher education sector has been commenced yet' (EURASHE 2013).

Access to RPL remains patchy and uneven across member states in Europe. The EC Recommendation relates to the broader Europe 2020 Strategy and in particular its flagship initiatives 'Youth on the Move' and the 'Agenda for new skills and jobs'. These 'emphasize the need for more flexible learning pathways that can improve entry into and progression in the labor market, facilitate transitions between the phases of work and learning and promote the validation of non-formal and informal learning' (European Council, 2012).
Background to the National Framework Project

The development of the National Framework builds on earlier work by the network. Since 2010, the Network has established an annual programme of work and a number of activities have already been concluded. This includes developing a greater understanding of current RPL practices within Scotland and further afield, and identifying key areas of development required enabling more streamlined, accessible processes within universities. Whittaker, Brown, Benske and Hawthorne (2011) undertook research as part of a two stage QAA project aiming to 'streamline RPL support and assessment' within the HE sector. The first part looked specifically at the mechanisms used by staff (both nationally and internationally) in supporting and assessing learners through the RPL process. Upon completion of the research, a set of 'institutional enablers for RPL' and a typology were developed in the form of a report to the QAA, in addition to a separate scoping study resource being made available. This research and outputs have informed recently completed Guidelines on Streamlining and Enhancing RPL Support and Assessment, which formed the second part of the QAA project (Whittaker and Brown, 2012b).

The Streamlining RPL research project did not directly explore learners' perspectives of support and assessment (Whittaker et al., 2011) and as a result identified potential areas for further research. The QAA, in conjunction with Glasgow Caledonian University and in collaboration with other Scottish HEIs, undertook research into the learner experience of RPL within Scottish HEIs. The project entitled 'Exploring the Learner Experience of the Recognition of Prior informal Learning Process' ran from May - July 2012. Key findings from the project included the inconsistencies in assessment practices and a lack of coherence between amounts of credit claimed and levels of evidence that are required in RPL. The research also highlights the importance of the role of the advisor in the RPL process, in supporting and guiding learners through the RPL claim process. This is also further emphasized in the suggestion that professional development and training of RPL advisors is an area, suggested by the learners, that requires improvement (Harris, Brown and Proudfoot, 2012). There is correlation between the perceptions of academic staff, explored in the first research project, and those of learners, investigated in the second project, that point to the need to untangle the complexities and variances between and within institutions in terms of RPL assessment practices. The sheer resilience required of many learners, as suggested by this small-scale research study, in persisting in their RPL claim, reinforces the need for more simplified, transparent and consistent practice across the sector (Whittaker and Brown, 2012a). The development of guidelines to support the streamlining and enhancement of RPL processes within Scottish HEIs, research into the effectiveness of RPL from the learner perspective, raises the visibility of the network and collaborative sector-wide activities as part of the new quality enhancement theme in Scotland - Developing and Supporting the Curriculum (Quality Assurance Agency, 2012b).

The inconsistency of policies and practices between HEIs and the continuing variance in awareness and understanding of RPL among students and staff have led to the next stage of development work for QAA Scotland and the Scottish HEI RPL Network: the development of a National RPL Framework for Higher Education. This initiative, funded by QAA Scotland with the endorsement of Universities Scotland and the Scottish Government, endeavours to address the barriers to RPL that make it difficult for the students, professional bodies, employers and university staff to engage with RPL including the resource-intensive nature of the process, or the perception that is resource intensive. The Framework will be developmental rather than prescriptive and will build on the typology developed through the Streamlining RPL Guidelines project, noted above. The HE sector, building on existing resources and expertise through the Scottish RPL HEI Network, will develop the Framework. While it will be a national framework, it will be flexible enough to reflect different institutional contexts (Whittaker & Gibson, 2012 cited in Whittaker and Brown, 2012a).
National Framework Project

The National Framework project is coordinated by Glasgow Caledonian University and comprises of five work streams, four of which are linked to the different aspects of the Framework, noted in Figure One below. These work streams are being led by RPL Network members drawn from different universities following an invitation to Network members to express interest in undertaking this activity. The work stream leads are also drawing upon the wider body of expertise and interest located in the membership of the RPL network. This approach reflects the collaborative nature of RPL development in the HE Sector in Scotland, supported by QAA Scotland and the Network. Each work stream uses a mixed methods approach to the research and development required to achieve the agreed outcomes. Ethical approval was granted by Glasgow Caledonian University for the. Prior to commencement in January 2013, the scope, methodology and outcomes of the project were discussed and agreed by the RPL Network at their meeting on 30th October 2012. The programme of work for each work stream was agreed with the identified leads in March 2013. The draft Framework document will be submitted to QAA Scotland on 31 July 2013.

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<tr>
<td>• Minimum sector benchmark for RPL</td>
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<td>• Strategic/sector level guidance/principles</td>
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<td>• Raise awareness at this level</td>
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<th>Institutional level</th>
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<td>• Support implementation of streamlining guidelines at institutional level</td>
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<td>• Introductory guidance to develop wider awareness and understanding</td>
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<td>• Examples of practice and disciplinary case studies</td>
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<th>Professional Body Level</th>
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<td>• Guidance on RPL for professional, regulatory and statutory bodies</td>
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<td>• Develop resources/case studies</td>
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<th>Student level</th>
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<td>• Guidance &amp; information</td>
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<td>• Resources &amp; toolkits</td>
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<td>• Raise awareness</td>
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Figure One: Framework Overview and Aims

**Work-Stream 1: Project Coordination**, led by Ruth Whittaker and Julie Brown from Glasgow Caledonian University, is responsible for the achievement of the national framework project and focuses on direction, support and monitoring of the four other work streams. This includes ensuring wider engagement of the RPL Network in the project through Network workshops.

**Work-stream 2: Sector Level dimension of the Framework** is also led by Ruth Whittaker and Julie Brown from Glasgow Caledonian University. This work stream is developing the section of the Framework which will be relevant at a sector level with a view to allowing HEIs and other organisations to share, develop and enhance practice in RPL in a consistent and sustainable manner. In addition it will raise awareness amongst sector level organisations.
and staff in strategic and policy levels in HEIs of the value of RPL as a method to widen participation and encourage the development of flexible, learner-centred curricula. The development of this section of the framework is being informed by a scoping exercise of national and international policy documentation and resources that will support the development of benchmark principles and guidance. It will also build upon the outcomes of the earlier QAA RPL Network research and development, principally the Guidelines for Streamlining and Enhancing RPL, as well as the outputs from other work streams. Consultation on the sector level benchmark principles and guidance will be undertaken through Universities Scotland Learning and Teaching Committee, membership of which includes university Vice Principals in Learning and Teaching. Feedback will be sought on the extent to which the benchmark principles are achievable for the sector; what changes, if any, may be recommended; what, if any, would be the barriers to implementing these principles and how they could be overcome; and the ways in which we can secure engagement and implementation of the national framework at a strategic level.

Work Stream 3: Institutional Level dimension of the Framework is led by Sandra Menzies from University of Stirling. This work stream is exploring and reviewing the institutional elements of RPL within Scottish universities with the aim of collating information that will support and guide the implementation of RPL within central and devolved institutional models, provide examples of generic and discipline-specific RPL and the development of a flowchart to guide and embed RPL at an institutional level. The methodology includes a review of the existing Streamlining and Enhancing RPL guidelines and a web-based scoping exercise and consultation exercise which will form the basis for collating generic and discipline-based RPL principles, RPL toolkits and working documents. The core principles of RPL will be tested through mock case studies. This section of the framework will include introductory guidance for HEIs to provide an insight into RPL structures, definitions, and applications. The aim is to develop algorithm-type guidance for HEIs to aid transparency, improve consistency of RPL between and within HEIs.

Work Stream 4: Student dimension of the Framework is led by Lea McKay, Mary Young and Dorothy Johnson from the University of the West of Scotland. The key aim for this section of the framework is to raise awareness and increase transparency of RPL for students and clearly identify the benefits of RPL in addition to providing user-friendly guidance and information. The development of this section is being informed by collation of existing guidance and information targeted at students within the Scottish HE sector, as well as focus groups of 6-10 students at UWS, GCU, University of Stirling, University of Strathclyde and Edinburgh Napier University. These focus groups will enable the exploration of participants’ experiences and knowledge of RPL processes and procedures and to elicit ways in which partners institutions can raise awareness of the benefits of RPL for students and increase opportunities for engagement in the RPL process.

Work stream 5: Professional Body and Employer dimension of the Framework is led by Marty Wright from Glasgow Caledonian University. The key aim for this section is to raise awareness and increase transparency of RPL for Professional, Regulatory and Statutory Bodies. (PRSBS) This will be mainly through developing guidance and sharing of best practice. The methodology for this work stream has three phases:

Phase 1: Scoping the parameters and practices for RPL adopted by PRSBs in Scotland, which includes a critical analysis of web-based professional body documentation of relevance to RPL to highlight the commonality and variation and issues worthy of further exploration or of relevance to other work streams

Phase 2: Examining the factors which influence PRSB engagement with RPL through two online surveys

Phase 3: Exploring strategies to enhance engagement with RPL amongst PRSBs through telephone interviews.
In addition to guidance of RPL for Professional bodies, case studies will be developed to raise awareness and enhance practice.

**Emerging Outcomes and Conclusion**

Following a network meeting on 29 April 2013, each of the work streams presented some initial findings of the work undertaken so far. Some of the emerging outcomes include:

Within the sector level work stream, the need to breach the boundaries of the 'RPL field', and facilitate the broader understanding of the interconnectedness of RPL, WBL and the flexible curriculum. The National Framework should make these connections explicit to policy makers at national and institutional levels and ensure that this forms part of wider developments in the sector in response to Scottish Government and European agendas. This will prevent any unnecessary duplication of activities, as well as build on existing expertise within the sector.

From an institutional level perspective the main outcomes to date include:

The on-going difficulties with RPL terminology and confusion surrounding terms such as experiential and informal learning.

The professional development of staff is still lacking and an area of priority. This connects to a lack of 'institutional memory' about how and why different RPL systems have developed and hence no explicit rationale for this.

There appear to be differences in approaches to RPL that are linked to centralised or devolved models of operation. A devolved system of RPL is one in which university procedures are operated and translated at a faculty/school/department level, with no or little central coordination or support. A centralised model involves a central RPL Coordinator or Unit, or Faculty RPL Coordinator working in partnership with subject experts but acting as a central point of contact, providing support and guidance for staff and students, and monitoring the process and the outcomes (Whittaker and Brown, 2012). A more instrumentalist/ credit exchange model of RPL (Butterworth, 1992) appears to be evident in centralised systems than in devolved models which are more developmental in their approach to RPL, exploring the links between prior and future learning.

The Student work stream has identified that much of the guidance and support available for students appears to be health/social care discipline specific information. One of the emerging outcomes therefore is the need to raise awareness of students in other discipline areas who could benefit from RPL. Equally the need to ensure the needs of international students in terms of recognition of their prior learning are met has been highlighted. 7

The preliminary scoping of professional body organisations for RPL engagement under the Professional body work stream has revealed the following as tentative issues of relevance to developing the national framework:

Delineating PRSB with regard to RPL is challenging given the lack of agreed definitions and diverse functions which characterise such organisations. Adopting regulatory and statutory views of PB may be limiting in the context of engagement with RPL so it has been necessary to embrace as broad a definition as possible to capture meaningful data and gain an overview of the field. Consequently, the definition extends beyond statutory and regulatory remits to incorporate organisations which represent professions including those with voluntary membership.

In general, RPL appears not to have a distinct presence on professional body websites making it potentially difficult for enquirers to access information. Preliminary scoping suggests that the term RPL is not commonly used and the small number of materials reviewed thus far reflect an ethos through the use of other terms such as exemption and experience. No one document appears to deal with RPL, rather the concept
when it appears does so across a number of documents reflective of how the organisation makes use of the process.
It has become apparent through the work undertaken thus far and in networking with colleagues, particularly SCQFP that QAA Scotland may wish to take cognisance of 'employers' as a distinct strand in the future development of the framework. Engagement with RPL for employers has already been established by SCQFP with a number of useful resources available on their website which has a distinct RPL presence. However, the employer perspective is integral to all levels of the framework in building a knowledgeable and skilled workforce, working in partnership with HE, and taking account of professional body requirements. Furthermore, their utilisation of RPL for learners in the workplace appears to serve a different purpose to that of RPL at institutional levels incorporating both employees and in some cases the wider communities which they serve.

The National RPL Framework aims to raise the awareness of a wider range of policy-makers, practitioners and students in terms of the opportunities RPL can provide, and the ways in which it can support other priority agendas linked to Lifelong Learning, widening participation and workforce development and the development of a more flexible curriculum. In order to achieve this, it needs to be both aspirational and practical, bringing together, in one place, key principles, guidance and resources that can be accessed by a range of users for different purposes. The connection between the development of this Framework and the EC Recommendation on the Validation of non-formal and informal learning (EC, 2012) will ensure that practice in Scotland is informed by, and informing, wider European developments in RPL.

References


Whittaker, R and Brown, J (2012b) QAA streamlining RPL guidelines. Streamlining and Enhancing RPL Support and Assessment. GUIDELINES. Glasgow, Scotland, UK: Glasgow Caledonian University

The First Year Advisor's Network: enhancing the first year experience in response to the Review of Australian Higher Education.

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ABSTRACT: In response to the 2008 Review of Australian Higher Education, Murdoch University redesigned its transition procedures drawing on research into best-practice in transition and the first year experience. It now offers all commencing students an integrated support program, centred on a school-based network of dedicated First Year Advisors who are available to assist all commencing students in their first two semesters of study. This case study outlines the model and illustrates the ways in which it can be altered to suit different contexts. Evaluation of the program through quantitative surveys of students and staff indicate that the First Year Advisors’ Network has been highly effective in enabling students to get timely assistance, and that staff have come to rely on the Advisors to provide pastoral advice.

Introduction

A year after publication of the 2008 Review of Australian Higher Education (Bradley, Noonan, Nugent Scales, 2008), Murdoch University in Western Australia was facing several challenges: the number of students reporting that they felt disconnected from campus life was increasing, attrition rates were unacceptably high and the number of students seeking assistance with academic study was also growing. Anticipating that the diversity of the student population would increase as changes recommended by the Review were implemented, and that greater diversity would intensify these challenges, Murdoch University undertook a comprehensive review of its transition procedures. It drew on research into best-practice in transition and the first year experience to redesign student support from the ground up (Kift, 2008; Lizzio, 2006; Tinto, 2001; Tinto, 2006-2007; Wilson, 2009; Wilson & Lizzio, 2008).

As a result of this process, Murdoch University now offers all commencing students an integrated program of academic and pastoral support, regardless of their socioeconomic background, matriculation pathway, age, ethnicity or other sociocultural factors. The centrepiece of the program is a school-based network of dedicated First Year Advisors, who assist students throughout their first two semesters of study. This paper provides a case study of an institution-wide response to changes in higher education policy. It further outlines the way in which that response was adapted to meet the needs of students on Murdoch's three on-shore campuses (one metropolitan and two regional) to illustrate the scope and effectiveness of this role.

Higher education in the Australian context

From the mid-1980s, when economic rationalism entered the Australian political domain, there have been major changes in the Australian higher education system that mirror changes in the overall political landscape. Successive governments, drawn from both of the major political parties, have produced policies that have stressed the economic benefits of education to the individual and the nation. This emphasis on utilitarianism led to profound changes in the nature of university education. These changes include: increased competition between universities and the development of intensely competitive marketing strategies (Marginson, 2006); growing recruitment of international students, particularly from South Asia and China, and greater diversity among the domestic student population (Marginson & Considine, 2000) proliferation of courses and subjects driven by student demand (Gallagher, 2000);
pressure on staff to employ innovative approaches to teaching and learning, while maintaining high standards (Nunan, George & McCausland, 2000). Widespread use of information and communication technologies in teaching and learning, both on campus and for distance education, and in other aspects of university activities (Krause & Hartley, 2005).

Over the same period, universities became more responsive to the needs of first year students during their transition to university and their first year on campus (Lizzio, 2006; McInnis, & James, 1995; McInnis, James & Hartley, 2000; Tinto, 2001). Commonwealth initiatives aimed at increasing school completion triggered a surge in the number of young people qualified to apply for university place and prompted a new interest in the process of transition from school to university. Many of these "non-traditional" students were enthusiastic and capable, but not necessarily well-prepared for a traditional university education and attrition rates were high. The inaugural Pacific Rim First Year in Higher Education Conference was held in 1995 to address specific issues relating to students’ transition to university and the quality of their experiences on campus. Universities established programs to support commencing students and improve the quality of teaching in first year units; for example the Monash Transition Program conducted research into transition, placed academics in schools to work with teachers and senior students and brought secondary teachers onto campus to teach first year units, assist academic staff to develop their own teaching skills and conduct research into transition from school to university (Pargetter, McInnis, James, Evans, Peel, & Dobson, 1998; Peel, 1998). In part, this interest in first year students can be attributed to the economic cost of attrition, estimated at $15,300 per student, per year (Marrington, Nelson & Clarke, 2010), but there is also a genuine recognition that the universities have a moral responsibility to provide appropriate support to their students including those from disadvantaged backgrounds (Devlin, Kift, Nelson, Smith & McKay, 2012).

Creation of the First Year Advisors’ Network

Inaugurated in 1974 as Western Australia’s second university, Murdoch has a long-standing commitment to social inclusion. The student profile has always included significant numbers of students from national equity groups, including regional and rural students, low socioeconomic status, culturally and linguistically diverse (CALD) and mature age students. In 2009, Murdoch was faced with several challenges: (i) attrition rates were increasing; (ii) an increasing number of students were struggling with the academic demands of University study; and (iii) many students were having difficulty making friends on campus which would support their social transition to university (Martin-Lynch, 2009). Anticipating that the Review of Australian Higher Education (Bradley, Noonan, Nugent & Scales, 2008) would increase student diversity further, the Director of Student Life and Learning commissioned a review of student retention, which identified concerns about the lack of cultural capital available to many commencing students, particularly those who were the first in their family to undertake university education and those from low socioeconomic status backgrounds. The report concluded that Murdoch needed to develop a coherent first year policy (Martin-Lynch, 2009) and in 2010 work began on a first year support program based on research undertaken at Griffith University (Lizzio, 2006; Wilson & Lizzio, 2008). The First Year Advisors (FYAs) commenced operation in January 2011.

Responding to Student Diversity

Predictions of an increase in student diversity were well founded. As the total number of commencing students has increased, the diversity of their backgrounds and experiences has also increased. By 2012, only one third of commencing students were following the traditional pathway from school to university; while the per centage of mature age students had remained stable, the per centage enrolling through alternate entry programs was
increasing. There were also significant differences between Murdoch's three campuses. The South Street Campus, which is home to law, engineering and veterinary science, continues to attract more "traditional" students - those who are less than 21 years old, have enrolled at university directly from school and have high entry scores (known as the Australian Tertiary Admissions Rank or ATAR). In contrast, the Rockingham Campus, which is located in an industrial area that is also home to a large naval base, attracts more students entering through articulation schemes with the technical education sector or through bridging programs. Students on Murdoch's Peel Campus are a special group as the campus was the exclusive home of the School of Nursing and Midwifery until 2012. In 2013 it was renamed the School of Health Professions and now offers some courses in chiropractic and counselling.

The FYAs are now an integral part of the first year experience at Murdoch (Box, Callan, Geddes, Kemp & Wojcieszek, 2012). The network consists of 16 advisors. Initially there was at least one in each School, but following a consolidation of the Schools from 14 to 8 in 2013, there are now 2-3 in each School on the main campus and one on each of the regional campuses, Rockingham and Peel. The FYAs operate on three main levels by: maintaining an open door policy, enabling students to get timely assistance without an appointment; engaging in regular outreach 'campaigns' during which they contact first year students who have shown evidence of needing additional assistance; co-ordinating three separate programs that engage students in different aspects of University life: Orientation; UniEdge and Peer Mentoring.

Murdoch University's First Year Advisors' Network is distinctive in that it includes all students, rather than focussing solely on students deemed to be disadvantaged or at-risk for on the basis of their ethnicity, family background or geographical location. In contrast to transition programs at other universities, Murdoch's program is School-based, but centrally co-ordinated and embedded within the university structures.

The FYAs are dedicated, pastoral staff. Unlike academic staff, who often struggle with competing demands, the FYAs have time to talk with students, help them to clarify goals, explain expectations of university life, suggest study strategies and refer them to support services where appropriate - all critical functions of an effective advisor program (Wilson, 2009). Each FYA is semi-autonomous and focuses on the needs of students in their own School. The network provides support to individual FYAs and ensures that responses to student needs are consistent. The FYA network originally met fortnightly to plan activities and campaigns addressing transition issues that affect the whole university (Martin-Lynch, 2009), although the frequency of these meetings has changed to monthly in 2013.

Outreach campaigns

Over the course of the year the FYAs run eight outreach 'campaigns' to support vulnerable students. They contact all international students at least once each semester, while external students are contacted at least twice. Other campaigns are specifically timed within each semester to offer specific groups of students an opportunity for just-in-time academic recovery (Wilson & Lizio, 2008). Just prior to the start of the semester, the student administration office provides each FYA with a list of students in their School who have accepted a place, but has not enrolled in units by the start of Orientation, and with a second list of students who have received a warning letter after failing 50% or more of their units in the preceding semester. Within the first two weeks of the semester, they FYAs are notified about students who have enrolled, but not interacted with the online Learning Management System by downloading course materials or engaging in online activities. Prior to Census Date, they are given lists of students who have withdrawn and shortly afterwards, lists of students who have with withdrawn, but without a formal intermission.
At Risk

The at risk campaign, continues throughout both semesters of a student's first 12 months of study. Students are defined as being at-risk if they show evidence of disengaging from their studies. This might include failing a diagnostic test or assessment task; missing classes; not engaging in online tutorials or requiring assistance with academic literacy and numeracy (Nelson, Duncan & Clarke, 2009). Tutors and/or Unit Coordinators observing these behaviours report the student to the FYA in their School using the At-risk Student Alert function on the class management intranet website, MyStudents. On receiving the report, the FYA telephones the student to discuss the situation, ask questions and provide assistance. If there is no response after two phone calls, the FYA will email the student using a standardised message tailored for each campaign theme.

To ensure that the reporting system works effectively, the FYAs liaise with first year unit co-ordinators and tutors at the start of each semester and explain the nature of their role, and the importance of just-in-time intervention to reduce attrition (Wilson & Lizzio, 2008). They also provide training in the practical aspects of using the At-risk Student Alert. The FYAs continue to meet with the first year unit co-ordinators in their Schools during semester to discuss issues affecting students and to promote events designed to improve the students' experience. These meetings play an important role in the success of the program by encouraging staff to report at-risk students before problems reach the critical stage. All interactions between the FYAs and students are logged using RightNow a customer service program that has been customised into a case management system. FYAs are able to check to see what advice or support has been given previously, and as all FYAs are able to access case files they can share information about students enrolled in dual degrees, or who change Schools. RightNow also facilitates the FYAN's capacity to redistribute the caseload when individual members are on leave or if there is a surge in demand in some schools.

Support Programs

The First Year Advisors also play a leading role in three separate programs that promote student confidence, improve preparedness and encourage engagement; all of which are preconditions for a successful first year (Boin & Lever, 2008; Kantanis, 1995; Quinn, Bennett, Humphreys, Nelson & Clarke, 2011).

Orientation Days

The FYAs work closely with academic staff to design and deliver Orientation activities. They provide study advice, outline career opportunities, discuss expectations of university life and appropriate work/study balance regimes - all of which have been shown to lead to improved student outcomes (Savage & Smith, 2007-2008). One of the most important activities they undertake during Orientation is helping students to set goals for their first year (and beyond) using the purpose-designed Goal Card. This is a business-sized card on which students to outline their goals; the reverse lists the key predictors for success (Lizzio, 2006) and research by Wilson (2006). The FYAs also distribute postcards to each new student. The card welcomes students, outlines the FYA's role and lists their contact details. Students are told that they can drop in without an appointment as well as phone or email for help. By the end of Orientation, many students have already developed a rapport with their FYA.

UniEdge

The second program run by the FYAs is UniEdge, a series of seminars designed to extend the process of Orientation over the first four weeks of semester and address both academic and social transition (Boin & Lever, 2008; Wilson, 2009). The seminars, which are presented jointly by the FYAs and staff from the Centre for University Teaching and Learning, cover...
key academics skills that students may not have mastered at school and community-building activities to position students for success in their first assessment tasks and foster a sense of community among first year students. In 2013, UniEdge introduced an additional element into the program. The FYAs hold an information expo on Bush Court, the university common, to distribute information about student services to students who have not attended the UniEdge seminars.

Peer Mentoring Program

The final part of the transition program is the university-wide Peer Mentoring Program. This program, which replaced the existing, but not always successful School-based programs, complements UniEdge; the emphasis is on enculturation into the academic life of the university through the Schools. The FYAs recruit and train second and third year students within each School as mentors. Pairs of mentors are then matched with up to eight first year students; groups meet weekly throughout the semester in an informal setting. Mentors provide course-specific guidance to students and refer them to the School's FYA where appropriate. In Semester 1 2012, 128 mentors and 380 mentees participated in the program.

Regional variations

Murdoch University's two regional campuses at Peel and Rockingham each have distinctive characteristics resulting from their location and the type of they course offer, leading to significant variations in the ways that the FYAs operate. Lower average cohort numbers are exchanged for a wider set of responsibilities, leading to more variety within the role. Owing to the smaller size of the regional campuses, the FYAs have a higher profile than on the South Street campus. They are well-known to all staff and students and are often called upon to undertake activities that are not associated with this role at the South Street Campus. In reality, they act as campus chaplains assisting and advising on a wide range of issues since they are often the first person to detect a problem and look for a resolution. In the last twelve months either or both of the regional FYAs have been asked to help design a student lounge, resolve timetabling issues that made it difficult for some student to attend class, organise a transition program for articulation students entering a course in second year and represent the university at an award ceremony.

Peel

Murdoch's Peel Campus is some 60 kilometres from the South Street Campus on the outskirts of the satellite town of Mandurah. Until 2012, Nursing and Midwifery was the only university School on the Peel Campus, but post graduate courses in Chiropractic and Counselling are being added this year and the school has been renamed the School of Health Professions. In some respects, having all commencing students enrolled in one degree on a small campus makes the FYA's job easier, but there are also challenges that arise from the structure of the course and the sociocultural backgrounds of the students that make the FYAs role crucial in the process of transition.

In Australia, nursing and teaching continue to provide a path towards upward mobility for many people who do not regard the elite professions as accessible (Alloway, Gilbert, Gilbert & Muspratt, 2004; Laming, 2012). Nursing is an attractive occupational for many students looking for secure, reasonable well-paid employment, especially in regional areas (Laming & Kelly, 2013), and the entry requirements are moderate. The majority of the students enrolling in the Bachelor of Nursing are mature age students and many have gained access through alternative entry programs. They are likely to be combining study with work and with family responsibilities and a large minority are from CALD backgrounds.
The course structure can also lead to difficulties for some students. It is inflexible, fully prescribed and taught wholly on campus. Students who miss more than 2 tutorials in a unit their unit for any reason fail automatically, and as units are not timetables in both semesters, students may have to wait 12 months to repeat the unit. In some cases, this means being out of contact with the university for six months as there are no other relevant units available. Also, the Nursing and Midwifery Board of Australia insists that students to complete each year of training before continuing to the next. Time away from study makes recommencing the course more difficult as the students have lost momentum and find it difficult to see themselves in their chosen role. Reorganising their lives, giving up full time work and refocusing on their long-term goal is also difficult.

Owing to the small size of the campus, the Peel FYA is well-known to all students and staff. As well as playing a prominent role in Orientation activities, she is often present at university functions that an FYA would not normally attend. The FYA on the Peel Campus is also responsible for organising activities that would be run by the Student Guild on the South Street Campus - the foodbank, the Multicultural Festival with African drumming and a steel band and "Stamp Out Stress Day, which features yoga classes, meditation with a Buddhist nun and a chocolate fountain. The FYA also played a leading role in establishing the staff-student tunnel ball competition complete with annual trophy. Lizzio (2006) demonstrated that student engagement with extra-mural activities reduces attrition and increases students' enjoyment of their studies. The Peel FYA's involvement in these activities puts her in regular contact with the students and establishes her as an approachable figure. She is able to address most of them by name, something that has long been understood to increase students' confidence and reduce attrition (Pascarella & Terenzini, 1977).

Having a small cohort of commencing students on a small campus also enable the FYA to seek out at risk students and "accidentally" meet them coming out of a tutorial or walking to the car park. In this way she is able to initiate a conversation in a non-threatening manner. Many students lack the confidence to address their lecturers or unit co-ordinators directly about their concerns and the FYA is often asked to sits in on a discussion between a staff member and student to offer support.

5.2 Rockingham

In many ways, the role of the FYA on the Rockingham Campus is more flexible (and more challenging) than any other. More than 90% of students at the Rockingham Campus are enrolled in teacher education, and the FYA is nominally a member of the School of Education, however there is a rapidly growing cohort of students studying tourism and events management, and applied accounting. In addition, each semester 10-12 elective units from courses offered only at other Murdoch campuses including sociology, community development, sustainability, sound, sports science, history, public relations, Asian Studies, Australian Indigenous Studies, English, creative writing and drama. These electives at the Rockingham Campus enable students living in the surrounding area to complete parts of their courses locally instead of travelling 30-40 kilometres to the South Street campus. The FYA at Rockingham provides support to all of these students, and as a consequence, is required to liaise with several different Schools.

Like all FYAs, the Rockingham FYA provides advice and support on a range of issues including study skills and career planning, and refers students to the support services when necessary, but his role is more prominent than that of FYAs on the South Street Campus as staff from Equity and Social Inclusion and Counselling are available one day per week and there is no Student Health Services on campus. Not only does he make appointments with these services, but he carries out triage, providing mental health first aid and fast tracking referrals when necessary. Like his counterpart on the Peel Campus, the Rockingham FYA provides welfare assistance normally organised by the Student Guild including food
vouchers and emergency loans and assists second and third year students. The FYA on the Rockingham Campus is unique in that he also helps students enrolled in the bridging program OnTrack, and in HeadStart, a program for secondary students enrolled in preparatory units for the West Australian Certificate of Education. He also offers tutoring in mathematics and science; staff from the Centre for University Teaching and Learning are available three days per week, but none of them is able to provide assistance in these areas. None of these extra responsibilities was included in the original role description; they have been added in response students' needs and rely on the skills of the current FYA employed at Rockingham. Paradoxically, they also mean that he has less time for one-to-one consultations with first year students.

**Evaluation: effectiveness and cost**

Creation of the First Year Advisors’ Network has had a profound impact on the whole Murdoch University community. As Table 2 indicates there is a steady demand for their services, but evaluating the program is a complex process, which must take into account both human capital and economic capital to develop a true picture of its effectiveness.

**Table 1: Interactions between First Year Advisors and students**

<table>
<thead>
<tr>
<th>Table 1: Interactions between First Year Advisors and students</th>
<th>Number of 1st year students enrolled</th>
<th>Total number of students contacted*</th>
<th>Number of student initiated contacts</th>
<th>Number of campaign contacts</th>
<th>Total number of interactions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sem 2, 2011</td>
<td>4273</td>
<td>3,486</td>
<td>N/A**</td>
<td>6,085</td>
<td>6,085</td>
</tr>
<tr>
<td>Sem 1, 2012</td>
<td>4360</td>
<td>4,853</td>
<td>3,017</td>
<td>7,529</td>
<td>10,546</td>
</tr>
<tr>
<td>Sem 2, 2012</td>
<td>4407</td>
<td>3,953</td>
<td>2,519</td>
<td>7,111</td>
<td>9,630</td>
</tr>
<tr>
<td>Sem 3, 2013***</td>
<td>4476</td>
<td>3,309</td>
<td>1,134</td>
<td>3,581</td>
<td>4,652</td>
</tr>
</tbody>
</table>

* this includes all students contacted, not just first year students
** data was not collected during this period
*** from January 1st 2013 - March 20th 2013 = 2.5 months

**Human capital**

Evidence drawn from evaluation of the program, which is undertaken at the end of each semester, indicates that the First Year Advisors’ Network has had a positive impact on retention. In Semester 2, 2011 95.6% of students were "happy to receive the call from their FYA" and 93.5% agreed or strongly agreed that the call was helpful; in Semester 1, 2012 the figure was 100% in response to both questions. The following comment is typical of many from the student evaluations:

[My FYA] was an amazing help, at first I didn’t think I could go to her for help, then I received a phone call from [her] and we made an appointment and sat down and talked about all of my issues and how I could resolve them. In the end, [she] helped me to resolve my problem and I am now very comfortable with the position that I am in. (student survey, Semester 1, 2012).

Moreover, 87.2% of respondents to the corresponding staff evaluation indicated that the FYAN has had a positive impact on students’ experiences.

The introduction of the First Year Advisor role has been of huge benefit to students and academics. It's hard to imagine how we managed without them! (First Year Unit Coordinator: Staff survey, Semester 1, 2012)

Both academic and professional staff have come to rely on the FYAs to assist students by providing advice that they may not comfortable giving or have time or skills to provide. FYAs have taken up a lot of the routine pastoral care work that would otherwise be required of me, and hence would often not get done due to the number of students (usually about 400-450). It is great that I can deal with the special cases and issues that arise, knowing that a lot of other pastoral care work is being done for me by the FYAs. (First Year Unit Coordinator: staff survey, Semester 1 2012)
6.2 Cost-benefit analysis

An initial analysis of the retention data suggests that in addition to providing a valuable service to both students and staff, the First Year Advisor program also provides a positive net financial return. Fifty-six per cent (440/786) of students commencing in Semester 2, 2011 who displayed at-risk behaviours and had active contact with their First Year Advisor were retained for three or more semesters. Retention continued to improve for at-risk students commencing in Semester 1 2012, with 61.3% (1,180/1,924) retained for three or more semesters. Further analysis will be completed in late-2013 for students commencing in Semester 2 2012.

The 2009 review of retention by the Director of Student Life and Learning estimated each student who discontinued their studies represented an average loss to Murdoch of $30,000 over three years, the usual length of an undergraduate degree (Martin-Lynch, 2009). This figure was confirmed by Marrington, Nelson & Clarke (2010). Retaining an additional 100 at-risk students beyond first year, equates an increase in revenue of $3 million. Even after factoring in students who are retained beyond first year but eventually discontinue in their second or third years, a positive financial gain still results after accounting for the $1.5 million yearly operating cost for the FYA program.

Concluding comments

Murdoch University's First Year Advisors' Network is a bold and innovative response to Commonwealth policy intended to complete the process of refashioning Australian higher education from an elite to a mass system. The combination of an open door policy, the outreach campaigns to vulnerable students and tailored programs has created carefully tiered levels of support for all new students and an improvement in the first year experience at Murdoch University. The Murdoch University First Year Advisors' Network was created to be flexible and dynamic in the way it responds to student needs. Its distinctive features - the distribution of the FYAs across each school under a central co-ordinator and detailed recording of data - give it the capacity to provide invaluable information to the university and to monitor its own effectiveness; a quality lacking from many first year transition programs (McInnis, Hartley, Polesel & Teese, 2000). It is a model that would be widely applicable to other tertiary institutions with an interest in improving student engagement, retention and the overall first year experience.

REFERENCES:


Developing teaching and learning standards in a new regulatory environment

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University of Western Sydney, Australia

ABSTRACT:
A new Higher Education regulatory regime has given impetus to sector-wide interest in developing valid and robust methods for demonstrating the learning outcomes and standards achieved by graduating students. This paper explores the value and practicality of using an approach based on collaborative inter-university peer-review of comparable final year subjects across a range of discipline areas. The process involved blind peer-reviewing of selected assessment items as well as sharing of subject outlines, assessment guides and program level expectations. Detailed written commentary provided substance to the evaluation and this was further enriched by focus group interviews with participants. Whilst some obstacles to implementation at a sector-wide level very identified, including concerns over reputational risk and workloads, the validity and value of such an approach particularly in informing enhanced quality of subject materials and cross-institutional, intra-discipline discourse was evidenced.

1 Introduction and Context

There is growing global interest in the quality of Higher Education (HE) provision and in the development of valid indicators of this quality. Of particular importance has been the rising discourse concerning valid indicators of the learning outcomes achieved by graduating students. Many stakeholders are driving and informing this discourse: governments with a stake in funding HE providers and a keen interest in the earnings they generate, particularly through maintaining an international reputation for educational quality and value; professional bodies which mandate skills and knowledge achievement levels for accreditation and registration to practice; employers who demand work readiness of graduates and finally students themselves seeking assurance that their personal and financial investment in learning is worthwhile.

Initiatives aimed at assessing learning outcome standards achieved by graduating students, have broadly encompassed common exit and within-program testing; peer review and moderation of subject and course artefacts and combinations thereof. The European Tuning Project, the UK Higher Education Subject Centres initiative and the External Examiners System represent approaches grounded in agreed understandings of desired student learning outcomes, framed in disciplinary context and manifest in reviews of learning material and assessment items. These initiatives recognise diversity of educational and institutional practice; the uniqueness of disciplines and the expertise of academic peers. At the other end of the spectrum is external, benchmarked testing, both of generic skills and discipline knowledge. The US Collegiate Learning Assessment (CLA) and the Australian Graduate Skills Assessment (GSA), both involve a series of writing and performance tasks aimed at assessing generic skills such as critical thinking, analytical reasoning, problem solving and written communication as well as, with the CLA, discipline specific knowledge. These tests have attracted significant critique as to their validity, particularly in different social, cultural and disciplinary contexts. But in the absence of alternatives they have gained traction and the GSA was recently touted by the Australian federal government as a possible exit test to be used in Australian Universities. The current OECD Assessment of Higher Education Outcomes (AHELO) project is an international feasibility study which uses a mixture of these two approaches. It is being piloted with Engineering and Economics faculties from across the world and involves common tests of generic and discipline skills, largely based on the CLA as well as more contextualised institution-based assessment of knowledge and the capacity to interpret and apply such knowledge.
In Australia this conversation has been sharpened by recent changes in the regulatory environment. First has been the development and ratification of a revised Australian Qualification Framework (AQF). The AQF provides a national policy for regulating qualifications and delineates the learning outcomes for qualification types from school, Vocational (Further) and Higher Education. The second influential change has been the disbanding of the Australian University Quality Agency (AUQA) and establishment of a new Australian Higher Education regulatory body, the Tertiary Quality and Standards Agency (TEQSA) in January 2012. AUQA, established in 2000, was an independent agency with a mandate to "undertake audits, report on performance and outcomes and....to assist in quality enhancement.. for the benefit of HE". It recommendations were public and focused on supporting performance. It had no legislated powers. The need to be reviewed by AUQA was separate to the requirements of Universities to report on their operations under the National Protocols. TEQSA is also an independent agency but, in contrast to AUQA, it has legislated powers and a somewhat more formulaic approach to assurance. TEQSA requires Higher Education providers to demonstrate they meet particular standards, which include those previously delineated by the National Protocols. These TEQSA standards encompass all aspects of HE provider operations. They include a set of four mandated Threshold Standards and three non-mandated, still evolving, non-Threshold Standards. The Threshold Standards are three Provider Standards, the first of which delineates operational requirements for HE providers such as governance, management, finances and resourcing; the second requires institutions to meet particular institution category requirements, including expertise in research aligned with teaching programs. The third of the Provider Standards is Course Standards which envelopes course design; course resourcing; admissions; quality of teaching and learning; assessment; monitoring and review. The fourth and final mandated standard is Qualification Standards which requires that awards delivered by the provider are aligned with the AQF. The three Non-Threshold Standards are Teaching and Learning Standards, Information Standards and Research Standards. Of these much effort is now being placed on developing and clarifying expectations encompassed by the Teaching and Learning Standard and its relationship with the Course Standards. The Threshold Standards, having now been used in one round of University re-registrations, are now under review by the Higher Education Standards Panel, which was established by the government to advise TEQSA.

It is against this backdrop that a number of initiatives concerned with HE quality and standards are in progress in Australia. Largely supported by the Office of Learning and Teaching (OLT) key initiatives include (i) the Discipline Scholars, who have been working to develop agreed threshold learning outcomes (standards) for graduates in their discipline; (ii) the Achievement Matters (AM) external peer review of Accounting learning standards; (iii) Go8 Quality Verification of Standards (QVS), involved validation of grades on marked assessment tasks and (iv) the learning and teaching standards project (LaTS) A sector-wide model for assuring final year subject and program achievement standards through inter-university moderation, involving peer review and moderation in discipline, which is the focus of this paper. This paper considers the largely qualitative aspects of this project with an emphasis on analysis of factors why may impact on the practical feasibility and acceptability of this approach with key stakeholders.

2 Project Description

The LaTS project is grounded in lessons learnt in international approaches directed at agreed protocols for academic comparability - external examiners, peer-review and moderation and in the research which grounds such approaches, particularly the centrality of assessment and its contextualisation within discipline expertise and expectations (Coates, 2010; Dill and Beerkins, 2013; Knight, 2006; Norcini and Shea, 1997; Yorke, 2008; Sadler, 2009; Smith, 1992).

2.1 Aims and intent

The LaTS project specifically aimed to develop a valid, robust methodology for assessing subject achievement standards and which could potentially be incorporated into TEQSA
standards expectations. In doing so the project not only focused on the academic validity of the process but also explored the value or otherwise to participants and their institutions and the practicalities of implementation.

2.2 Methodology

The approach had three major components (i) blind peer review of assessment items from selected final year of program subjects; (ii) analysis by peer reviewers of the positioning and the validity of these assessment items in the context of subject outlines and expectations and (iii) post review focus group interviews with participants to explore issues pivotal to success of the approach with individuals and their institutions.

Participants and discipline areas

Originally eight Australian Universities were partners to this project - The University of Western Sydney, Griffith University, University of Melbourne, La Trobe University, Charles Darwin University, Macquarie University, Queensland University of Technology and the Australian National University. These were subsequently joined by another three - University of Tasmania, University of Wollongong and Deakin University. This represents a spread of quite differently positioned Universities in the Australian HE sector, including the research intensive Go8s; regional institutions and large metropolitan universities with large contingents of disadvantaged students.

Within these Universities eight Field of Education discipline areas were identified to participate. These areas were selected to ensure diversity and included subjects which were part of professionally accredited programs; performance based subjects; languages and representative subjects from the sciences, business and the social sciences. Prior to the commencement of the project a meeting was held at each partner university to explain the intent of the project, its desired outcomes and the process to be followed. Ultimately twelve discrete subjects and a total of sixty two academic staff were involved in the project, which encompassed the subjects of Chinese, Civil Engineering, Economics, Environmental Science, History, Journalism, Law, Marketing, Music, Nursing, Philosophy and Physics.

The subject review process

As indicated above the review process was informed by research which supported consensus moderation in assuring integrity in academic achievement standards. As such the process was based on using primary evidence of academic standards, specifically assessment samples which were reviewed within the whole of subject context. Once agreement was reached on the subject areas to be involved, effort was focused on identification of final year subjects which were deemed to have sufficient commonality and be representative of core discipline expectations. Subject convenors were provided with an information sheet outlining the process and expectations. This phase of the project was fairly iterative as subject "matches" and willing participant convenors were sought.

Subject material was collected including subject inputs - outlines, assessment items and marking criteria and outputs, four samples of graded student assessments in four grade bands from Fail to High Distinction. These assessment items were then de-identified and all indications of grading removed. For each chosen subject, subject coordinators were also asked to provide contextual information on how the subject fitted within the degree program. Material from the home University was then sent to one and preferably two partner universities for review.

Reviewers were provided with a feedback template to facilitate comments on the subject inputs (content, learning outcomes and assessment items) and asked to mark the de-identified assessment items using the marking guide provided. Feedback was sought with respect to the following:

the appropriateness and validity of curriculum content for level of study;
the relationship between the assessment item and the subject learning outcomes;
the relationship between the assessment tasks and the graduate learning outcomes;
clarity of explanation of requirements for achieving grade levels;
clarity and appropriateness of grading guidelines;
suitability of assessment tasks in assessing key learning objectives.
These questions themselves had a quantitative component, with a 5-point Likert scale as well as provision for comment.

**Collegial feedback**

Subsequent to the review process focus group interviews were conducted with participants from the discipline areas of Environmental Science, Law, Physics, Economics, Marketing, Music, Philosophy and Chinese. These interviews canvassed participants' opinions on the success or otherwise of the process; any personal development benefits; perceived enablers and impediments; how the process could be improved and whether it was feasible as a whole of sector approach.

3 Findings and Implications

3.1 Responses rates

A total of 62 academic staff were involved in the review process with a response rate of 93.55% and an average turnaround time of 4 weeks. A total of 52 sets of 4 samples of student work (208 in total) were exchanged between the home institution and one partner institution and of these 33 sets were assessed by a second partner (132 in total). A total of 340 instances of assessment were undertaken.

3.2 Observations

3.2.1 Moderation of assessment items

In general there was broad agreement as to the grades awarded by the home and the reviewing institution. Not unexpectedly some variation occurred and these primarily fell at the Pass/Fail boundary. At the moment this data is not available in the public domain.

3.2.2 Evaluation of subject inputs

Table One presents a summary of the data which accompanied the grading of assessments and the reviewing of subject materials. A 5-point Likert Scale with higher scores indicative of agreement/positivity was used.

<table>
<thead>
<tr>
<th>Table One: % Reviewer agreement/ Subject material</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Not at all</strong></td>
</tr>
<tr>
<td>-------------------------------------------------</td>
</tr>
<tr>
<td>Appropriateness and validity of subject curriculum content for level of study</td>
</tr>
<tr>
<td>Explanation of relationship between assessment tasks and unit learning outcomes</td>
</tr>
<tr>
<td>Explanation of relationship between assessment tasks and graduate learning outcomes</td>
</tr>
<tr>
<td>Clarity of explanation of requirements for achieving at grade levels*</td>
</tr>
<tr>
<td>Clarity of grading guidelines*</td>
</tr>
<tr>
<td>Appropriateness of grading guidelines*</td>
</tr>
</tbody>
</table>

*Some reviewers deemed this not applicable

As can be seen from this data the overall ratings were positive - adequate and above. The textual material that accompanied this data gave the predominate reasons for disagreement as issues of clarity and completeness of information. In particular negative comments referred to lack of rubrics to guide students and assessors; ambiguity of grade requirements; lack of clear explanations as to how assessment linked to expectations and outcomes. In the main reviewers found the curriculum and assessment tasks appropriate for the level of study in the particular discipline.

Transcending the actual details of the evaluation of assessment items and subject materials, this component of the project highlighted the value of discipline-peer engagement. The feedback generated not only could be used for moderation of assessment but to inform improvements in curriculum and assessment design.

3.2.3 Participant feedback
The focus group interviews yielded a wealth of personal perspectives on engagement in the process. A number of themes could be identified in participants’ comments:

**The valuing of seeing what others are doing**
by doing this particular process … I saw what other people were doing and brought it up in the context… (Philosophy)
I thought this process was about as good as I could imagine. Getting hold of other people’s exams was insightful; it was interesting. Having a look at other student’s work was typically painful, but worthwhile. I wouldn’t want to do it very often. (Philosophy)
… just getting a look at each other’s syllabuses and the assessment is the most efficient way to get at the heart… (Physics)
Seeing what they’re doing is exactly what we’re going to try and do in the future. (Philosophy)
much more useful ultimately for everyone involved and encourages the assessor to really engage more with the work rather than just sort of skim it through… (Music)
really useful to start with the … out lines, and then work across what those outcomes were, because without all of the information you’re really just working on an isolated component. So I found it a really interesting project, because you don’t often or you just never get really to see how other people do what you are doing in your institution, so it was great (Marketing) there were at least a couple of things I picked up where I thought that’s an approach, it actually made me reflect that I made … our teaching team may be a little bit too strict or a bit too harsh on some of the students (Law)

**The valuing of disciplinary and diversity**
One of the things that I found was the disparity of the material that constituted an advanced Quantum course in the different universities… I actually enjoyed seeing that disparity.
I’m kind of happy to see that across Australia… we do have heterogeneity … and it should be sort of slightly dynamic because that material should all be sort of out there (Physics)

**Workload and sustainability**
this kind of process….once every few years and I think there’s a lot of value in that. (Physics)
… the resource implications, it does take a long time and that’s the one thing you have to think about, (Marketing)
I don’t know how you overcome that, and we just keep getting lumped with more and more reporting and more and more, you know, learning outcome stuff that comes in. (Marketing) it’s almost a work minimisation sales pitch, where you can say look this is being done elsewhere and they’re having good results with that, and that will be a benefit for us …... the pressures on full time staff here if you say to them oh here’s another teaching initiative, oh no, they just collapse under the weight of what they have to do (Law)
if this process happens over a period of time, so just say your courses were viewed a number of times over a number of years, so perhaps not every year but at different points in time (Chinese)

**Consensus**
I think the assessment task shows that there’s a fairly common standard but the content… it’s going to be a bit hard to define exactly what that is (Philosophy)
So I think that really the most effective way forward is for us to arrive at consensus both internally within departments and programs and universities and between universities as well and I think that the idea of arriving at consensus in comparatively small groups and then overlaying that with a cognate discipline so standards are shared between cognate disciplines is a mechanism by which that common understanding of standards of student achievement can be shared very, very broadly. But it’s not an easy thing, you need to involve people who actually believe that this is a rational thing to do and are prepared to put in the time and energies into developing that sort of a process. (Physics)

**Anonymity?**
I’m not sure that anonymity is actually necessary for a continuing process though but certainly at this stage it was (Music)
I'm not sure that there's any great benefit in anonymity in any case. I think that probably this kind of thing we need to as colleagues rather than as sort of blind reviewers for example and a dialogue the notion that you can do it anonymously is good for the aggregate sort of picture. But I think also for feedback purposes a brief discussion with someone who's been looking at your course would also be useful which means of course that it's no longer anonymous (Econ)

Improvements

Discipline panels:
One suggestion may be that - I mean obviously it wouldn't necessarily be that cheap but if you could get everyone just in the same room for three or four hours and have the various bits and pieces de-identified and then have sort of a discussion about any differences there and then, more immediate type of feedback might be useful. (Philosophy) I would like to see ….a group …set up some panel or gather all these people together to sit together, actually to have a face to face discussion and what we have learned, what we can improve for the future. (Chinese)

Use technology

the process online would lessen the bureaucracy to some extent (Music)

Whole of program

most institutions still have pretty much a unit focus, I don't think we really look very well at where things fit together in the overall program yet. We're sort of still in a bit of a silo mentality (Marketing)

there seemed to be some things missing some important skills missing in one case, .....it may well be that those skills were actually covered in another subject. (Environmental Science)

additional information would've been useful in a sense that you're looking at third year, final year Macro Economics units, it would've been very useful to know what was done in previous units (Economics)

there are many different ways you can construct courses, configurations of courses to meet those objectives. I'm not too sure that ... it's very difficult to pass judgement on different configurations (Economics)

3.2.4 Implications

Whilst peer-review is willing accepted and even lauded in research, in general, academic staff are less willing to have their teaching and learning exposed to such scrutiny. Academics have not been called upon to systematically evidence their standards setting and assessment practices. The necessity to provide such public evidence is a significant culture change requiring negotiation and demonstration of the value of such engagement. This project found no automatic buy-in by academic staff and there was a high level of anxiety regarding peer critique. Participants were concerned about criticisms of subject materials and of the validity of their assessment tasks and gradings. Reputational risk and concern over potential sub-standard performance required negotiation and assurance of confidentiality and anonymity. These issues are clearly ones which need to be addressed if peer review processes are to become part of normal University business. The comments cited above suggest such concerns can be overcome by negotiated and clear understanding of the process intent. Anonymity, a big issue initially, became less important when respondents became engaged in the process. Participants clearly experienced the benefit of open engagement with their peers and with access to another individual's subject material. This frequently generated an affirmation of their own work or gave them insights into how they could improve their own materials. Many saw engagement in the process as positive staff development and an opportunity to develop new discipline networks.

Workload is an issue of ongoing concern in Universities, both for individual staff and university administration. Peer review processes, such as the approach trialled in this project, can increase the workload of participant academic and ancillary staff. The latter often bearing the hidden costs of such initiatives, collecting, collating and exchanging materials, de-identification processes and collation and analysis of results. If such approaches are to be mainstreamed there is a clear need for this to be factored into
workloads, for practical guidelines and processes to be developed and adequate resourcing and support to be allocated.

4. Conclusions

This project affirmed the validity and acceptability of discipline-based peer review of assessment. The provision of contextual material increased the valuing and utility for participants. It was clear that the evaluative process needs to encompass whole of program expectations and that academics need to be able to articulate how their subject learning outcomes align with program level outcomes. Discipline staff are well positioned to monitor and assure learning standards and Universities need to have policy frameworks that require regular moderation of assessment and regular, but not onerous review.

The process of peer moderation, as described in this project, would be well suited for inclusion in the regulatory Threshold Standards.

5. References and Relevant Sites

5.1 Reference sites
Assessment of Higher Education Outcomes
http://www.oecd.org/education/skills-beyond-school/testingstudentanduniversityperformancegloballyoecdsahelo.htm

Australian Qualifications Framework

Collegiate Learning Assessment

Graduate Skills Assessment
http://www.acer.edu.au/tests/gsa

TEQSA
http://www.teqsa.gov.au/about

5.2 References

Acknowledgements
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Enhancing quality of Finnish higher education - Impact of institutional audits 2005-2012

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ABSTRACT: The Finnish higher education system has gone through the first round of institutional audits, i.e. both universities and universities of applied sciences have been audited according to the very same enhancement-led audit model. The intention in this paper is to show and discuss how effective the national audit model has been, the state of quality management within higher education in Finland, and possible differences between the two higher education sectors. The paper also critically reflects the question whether an audit, as the main national evaluation tool, is the most fit for purpose and effective enough to assure the quality of higher education in Finland, as the whole higher education system is undergoing major changes. This paper utilizes as its main source material four studies funded and/or commissioned by FINHEEC on the impact of audits, institutions’ follow-up reports on their post-audit development work, and feedback gathered from the audited institutions.

1 Aims of the paper and the data used
During the years 2005-2012, the Finnish higher education system went through the first round of institutional audits. The Finnish Higher Education Evaluation Council (FINHEEC) audited all Finnish higher education institutions (HEIs) - both universities and universities of applied sciences (UASs) - according to the very same audit model. The first-round audit reports, 68 (49 pieces + eight re-audit reports) published by FINHEEC between the years 2005 and 2013 provide unique material on a country’s whole higher education system. Now that Finland has demonstrated both nationally and internationally that it has competent and systematic national quality assurance in place for higher education, it is time to look back and consider what kind of impact the audits have had on the institutions and what we have learnt about the Finnish HEIs in general.

The intention in this paper is to show and discuss how effective the national audit model has been, the state of quality assurance within higher education in Finland, and possible differences between the two higher education sectors. The paper also critically explores and reflects the question whether an audit, as the main national evaluation tool, is the most fit for purpose and effective enough to assure the quality of higher education in Finland, as the whole higher education system is undergoing major changes.

This paper utilizes as its main source material (i) four studies funded and/or commissioned by FINHEEC on the impact of audits: Moitus (2010), Ala-Vähäälä (2011), Haapakorpi (2011), and Talvinen (2012); (ii) institutions’ follow-up reports on their post-audit development work prepared for the follow-up phase of the audit (32 pieces); and (iii) feedback gathered systematically from the audited institutions during the first audit round.

2 The Finnish higher education and evaluation system
Institutions in both higher education sectors have a public, law-based mission to provide degree education; to conduct research, development and innovation activities, as well as artistic activities; and to have a societal impact. The two sectors are distinguished mostly by the fact that only universities can award doctoral degrees, the research conducted at UASs is more linked with research and development activities and regional working life, and the degrees produced by UASs are more oriented towards working life.

When the impact of audits is discussed, it is essential to notice that it is not easy to distinguish which changes in the Finnish HEIs during the past eight years have been consequences of audits, and which have been caused by other developments such as the new University Act or structural and organizational changes within the institutions. The

68 All audit reports are published in FINHEEC's publication series and can be freely downloaded from FINHEEC's website www.finheec.fi.
number of institutions has decreased and there is still pressure for additional institutional mergers. There is also an ongoing effort to reform the UAS sector, i.e., the steering and funding system is being revised and the institutions' licenses will be renewed by the end of 2013.

FINHEEC, founded in 1996, is a national quality assurance agency that is responsible for, among other things, assisting the HEIs and the Ministry of Education and Culture in matters pertaining to evaluation and conducting evaluations relating to the activities and quality systems of HEIs. Currently, the focus of FINHEEC's activities is on the audits, and most of the resources are allocated for implementing them.

Institutional audits are Finland's response to the requirements of the Bologna process to develop a comprehensive national higher education quality assurance system that would correspond to the European Standards and Guidelines, and that would consolidate the international competitiveness of Finnish HEIs. It is central for understanding the Finnish evaluation system that the audits, as well as other evaluations conducted by FINHEEC, are carried out as enhancement-led evaluations. Thus, the objective of the audits is to produce information to assist HEIs to develop their activities. One of the audit model's underlying principles is the autonomy of HEIs, according to which each institution decides on the objectives, structure and operating principles of its quality system, as well as the procedures used. Furthermore, the recommendations and various insights given to the institution can be put into practice by the institution in the way it considers best.

In the Finnish context, an audit means an independent and systematic evaluation of an institution's quality system, i.e. the processes, procedures and system to maintain and develop the quality of an institution's operations. Furthermore, compared to audit models used in many other European countries, FINHEEC's audit model is comprehensive in that not only the quality management of degree education is reviewed but also the quality management of other duties of institutions. As a result of the audit, an institution either passes the audit or is subjected to a subsequent re-audit. It is important to note that, in the spirit of enhancement-led evaluation, institutions are neither rewarded for a positive result nor punished for a negative one. That is, there are no financial incentives or loss of degree-awarding powers. Furthermore, no ranking among institutions is established on the basis of audits.

3 The first audit round in short
3.1 Facts and figures

The first pilot audits were completed in 2005 and the final first-round audits in 2012. Table 1 shows the number of audits and re-audit decisions in the first round. The total number of audits (49) is not the same as the current number of HEIs in Finland. Due to mergers, there are currently 42 institutions, consisting of 25 UASs, 14 universities and three other institutions not governed by the Ministry of Education and Culture. During the first round, FINHEEC conducted 28 audits in the UAS sector and 21 audits in the university sector. Table 1 The number of first-round audits and re-audit decisions (Talvinen, p. 26).

<table>
<thead>
<tr>
<th>Publication year of the audit report</th>
<th>Universities of applied sciences</th>
<th>Universities</th>
<th>All higher education institutions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total number of audits</td>
<td>Re-audit decisions</td>
<td>Re-audit decisions</td>
<td>Re-audit decisions, total</td>
</tr>
<tr>
<td>2005</td>
<td>2</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

As can be seen from Table 1, nearly one in five audits (18%) resulted in a re-audit decision. There is a distinction between the two higher education sectors: 14% (4/28) of the UASs had to undergo a re-audit, whereas the corresponding percentage at the university sector was 24% (5/21). Thus far, of the institutions (eight pieces) that have been re-audited, all but one university passed. On the basis of the success rates, the UASs seem to have had a head start in quality management over the universities. This is also reflected in the prior studies by Talvinen (p. 36) and Ala-Vähälä (p. 24) and has been explained by the fact that the UASs were established in the early 1990s and started their quality work already then since they had to go through a license application procedure similar to audits. In addition, some UASs participated in voluntary audits of quality work already from 1999 onwards (Moitus and Saari, 2004).

The audits have directly affected thousands of persons in higher education. Numerous people within the institutions have helped with the preparations for the audits. Each audit includes a site visit during which, on average, well over hundred persons were interviewed. Since most first-round audits were conducted by five-member national expert teams, the total number of experts conducting audits is also quite impressive. The FINHEEC policy in recruiting auditors has been to involve experts from both higher education sectors and comprehensively from various institutions so that the first audit round would also be a learning experience as widely as possible within the field. This has also provided a good opportunity to disseminate good practices within the field. Talvinen (p. 22) proposes that the number of those involved, the relative smallness of Finland, and the interactions and networking between institutions partly accounts for the wide acceptance of the Finnish audit model by the institutions. Another factor explaining this might stem from a strong tradition to closely involve higher education institutions and other stakeholders in the constant development of evaluation methods.

### 3.2 Feedback from the HEIs

FINHEEC takes a keen interest in developing its activities by collecting feedback from the audited institutions. According to the feedback gathered during the first audit round, HEIs were quite satisfied with the audits. Three indicators remained exactly the same and can be monitored throughout the whole first audit round and, therefore, are studied here. For all the following statements, the respondents (i.e. the HEIs as a unit) were given a scale ranging from 0 to 4 (0 = "completely disagree"; 1 = "somewhat disagree"; 2 = "somewhat agree"; and 4 = "completely agree").

1. The feedback given by the audit team was relevant and useful.
   A significant majority of respondents (73%; 32/44) completely agreed with this statement, and the rest of the respondents (27%; 12/44) somewhat agreed with it. Thus, none of the respondents disagreed with the statement. UASs were more satisfied than the universities with the feedback given by the audit team: 76% (19/25) of the UASs completely agreed with the statement compared to 68% (13/19) of the universities.

2. The FINHEEC audit team was professionally competent.

<table>
<thead>
<tr>
<th>Year</th>
<th>UASs</th>
<th>Universities</th>
<th>Total</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>8</td>
<td>1</td>
<td>1</td>
<td>13%</td>
</tr>
<tr>
<td>2011</td>
<td>9</td>
<td>1</td>
<td>1</td>
<td>11%</td>
</tr>
<tr>
<td>2012</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Total</td>
<td>49</td>
<td>4</td>
<td>5</td>
<td>18%</td>
</tr>
</tbody>
</table>
Of the three indicators, HEIs were most satisfied with the professionalism of the audit teams. 82% (36/44) of the respondents completely agreed with this statement and 16% (7/44) of the respondents somewhat agreed with it. UASs were again more satisfied with the professionalism of the audit teams: 88% (22/25) of the UASs completely agreed with the statement, as did 74% (14/19) of the universities. One university somewhat disagreed with the statement.

(3) The audit criteria were clear and well-functioning.

Of the three indicators, HEIs were most critical regarding the audit criteria. The majority (58%; 25/43) of the respondents somewhat agreed with this statement, 26% (11/43) of the respondents completely agreed, and 16% (7/43) somewhat disagreed with it. Again universities were more critical than UASs: 22% (4/18) of the universities somewhat disagreed with the statement compared to 12% (3/25) of the UASs, and only 11% (2/18) of the universities completely agreed with it compared to 36% (9/25) of the UASs.

According to a time series analysis, these indicators did not exhibit clear trends (e.g. an increasing trend of satisfaction) as the first audit round proceeded. Satisfaction of the HEIs with the audits remained relatively constant throughout the first audit round.

To conclude, the feedback gathered from the HEIs indicates that the HEIs were, as a rule, quite satisfied with the audits and that the universities were slightly less satisfied with the audits than the UASs. The latter observation is also reflected in the study by Ala-Vähälä (pp. 40-41). According to a survey and interviews Ala-Vähälä conducted in HEIs, the personnel groups in the UAS sector took a more positive view of the quality work and the construction of a quality system than corresponding groups in the university sector. Furthermore, there was a difference in the perception also within the institutions between different personnel groups. The management and central administration had the most positive view on the quality work in both higher education sectors, whereas the university researchers had the most critical view among all personnel groups in the HEIs.

4 State of quality management in the Finnish HEIs

In this section of the paper, the impact of audits is examined through the general state of quality management in the Finnish HEIs represented in the audit reports. The section owes a great deal to two studies of the audit reports (Moitus 2010, Talvinen 2012). Since these studies provide somewhat similar results on the general framework of quality systems and state of affairs, references to individual studies are only made when distinguishing the two is necessary.

4.1 General features of quality systems

It can be safely argued that Finnish HEIs now definitely have quality systems in place and that in many cases the problem is their relative complexity. In the beginning of the first audit round, several HEIs were still clearly focusing on the creation of unified quality systems. All institutions, of course, had various means for ensuring and enhancing especially the quality of education and research already before the actual audit. HEIs that passed the audit have quality systems that are comprehensive, well-documented and they produce relevant information and feedback data, for the utilization of which the HEIs have clear evidence. All institutions that passed the audit have a quality manual or respective document that contains at least the most relevant features of the quality system; usually, it outlines an institution's organizational structure, the steering of operations, the division of responsibilities, the main processes, and the objectives and main principles of quality work. Moreover, it is not uncommon for an institution to have several quality manuals, e.g. faculty-specific or a separate one for a library.

Most HEIs use the Deming cycle, also known as the PDCA (plan-do-check-act) cycle as the conceptual framework of quality management. Furthermore, almost all of the institutions are run as process-based organizations. Some institutions seem to be applying widely recognized quality standards and models (e.g. the European Foundation for Quality Management model, EFQM, or ISO standard), while others have developed their own quality assessment methods. It is obvious that the FINHEEC audit manual and the criteria pertaining to it also had a strong steering effect on how the quality systems look like. As the
first audit round proceeded, the quality systems and management systems tended to become more and more linked with each other.

One of the most significant effects audits have had on the HEIs is the development of quality culture. From the institutional management point of view, the development of quality culture has been realized in more systematic and goal-oriented strategic planning and management as well as more systematic steering of operations. Most of the HEIs have also hired specific quality personnel, who support the management in quality matters. As a rule, the management in HEIs is highly committed to quality work. A specific feature in Finnish HEIs is that students are widely involved in the institutions' quality work. In both higher education sectors, there is a long tradition of strong and notable student organizations that have been an inherent part of the development of Finnish higher education.

Institutions exploit specific procedures such as internal audits and joint events to foster quality culture and share thoughts together and to eventually lead to the creation of a sense of community. One of the most prominent verified positive effects of the audit is that it gathers people together to discuss and share different practices leading to better social integration and creating a sense of community (cf. Haapakorpi, p. 80). Some institutions have built a specific quality system brand to communicate quality matters in an illustrative and relatable manner: for example, Quality Bakery to illustrate that quality is one's everyday bread, Quality Washing Machine to replicate the PDCA cycle, and Quality Armoured Vehicle in the context of a military HEI.

4.2 Degree education

Of the three basic duties, the quality management of degree education seems to be in the best shape. It is characterized by the following features. In addition to their main strategies, many institutions also have separate pedagogical strategies. There are various procedures for collecting feedback from students and working life, and this information is utilized reasonably comprehensively in setting goals for education, preparing curricula, implementing education and monitoring the quality of degrees. Typically, the HEI management conducts performance negotiations with the faculties or departments to set goals with regard to the number of completed degrees and to agree on the focus areas for development. The links between teaching and research are emphasized in both sectors.

Some institutions implement regular external evaluations of their degree programmes or disciplines, while others participate in external certifications or accreditations. In addition, many institutions implement internal evaluations of degree programmes, for example with the help of EFQM self-evaluations, cross-evaluations of degree programmes, or internal audits. Institutions also have several procedures to ensure the pedagogical quality of education. In most institutions, the teaching staff are actively supported in developing their pedagogical competences. Quite a few institutions arrange events related to pedagogy and everyday teaching work for their personnel. The teachers' competence and possible educational needs are assessed annually in employee performance reviews.

Several institutions have specific orientation manuals for new personnel and students. Most of the institutions also have a tutoring or mentoring system for new students and staff. Institutions have various manuals and guidelines in use for scientific writing, the completion of the thesis and working life training. There are also alumni systems and employment surveys in place. Since personal study plans are now mandatory, all institutions use them. Unfortunately, in several institutions, international and postgraduate students are not as involved in the quality management as other students, and there is not enough information available in English for international students and staff. During the first audit round, one of the most common development areas with regard to degree education was the quality management of doctoral education.

4.3 Research

Quality management of research is generally quite well taken care of in Finnish HEIs. Institutions in both sectors define their strategic research profiles, describe their processes, put project management guidelines in place, take care of research infrastructure, and gather feedback from personnel and external partners. What is particular in the university sector is
that in their strategic plans, universities spearhead particular types of research or identify specific areas of sciences that the university should particularly focus on and invest in. Universities have also developed internal evaluation and rewarding systems to recognize and reward units for successful research activities. Various kinds of peer reviews traditionally have a key role in the quality management of research conducted especially in universities. However, since the two sectors have a somewhat different approach to research, one feature distinguishes the two sectors clearly: in the university sector, the quality management of research focuses on the output of research activities, whereas in the UAS sector, the focus is on the research process. Thus, universities have various indicators to help them monitor the quality of research. In addition to assessing the number of scientific publications, figures regarding external funding, scientific awards and international exchange personnel are also tracked. Many universities also regularly participate in external evaluations of their research. Furthermore, the internal working groups established at universities (e.g. specific scientific councils) monitor the quality of research. UASs, in turn, have procedures for integrating research, education and working life. However, there are no explicit institutional (or indeed national) guidelines on what is meant by research in the UAS sector. In several audits, it has been pointed out that UASs lack mechanisms for recognizing inadequate quality in their research activities. There seems to be a need for a general framework for measuring the quality and impact of the research activities in the UAS sector. This has also been pointed out by Maassen et al (2012).

4.4 Societal interaction
Although excellent forms of societal interaction already existed in both higher education sectors during the first audit round, the quality management of societal interaction was distinguished in many cases by sporadic procedures and informal relationships (cf. Lyytinen et al 2012, 95). Furthermore, it was not clear what exactly was meant by societal interaction, let alone how it should be measured. It is evident that there is a continuing need for clarifying discussion in the whole field on what is meant by social interaction and how its quality management could be best implemented.

To sum up, it can be said that the first audit round was a real learning process for FINHEEC, the Finnish HEIs, and members of the audit teams. According to prior studies by Ala-Vähälä (2011) and Haapakorpi (2011), HEIs consider the pre-audit effects greater than the post-audit ones. Preparations for the audit have been excellent learning experiences, helping to gain an overall view of the operations of the institution, to identify problems and to launch development projects.

5 Post-audit development work and HEIs’ views on the impact of the audit
In 2009, in the mid-point of the first audit round, FINHEEC launched a series of follow-up seminars for the audited institutions to support them in their post-audit development work and to share experiences and good practices with other institutions. In this section, effects of audits and institutions' post-audit development work are discussed as represented in HEIs' follow-up reports submitted to FINHEEC around three years after the audit. Again it has to be stressed that it has not been easy for the institutions to distinguish which changes have been consequences of audits, and which have been caused by other developments and evaluations.

5.1 Improvement of management and feedback systems
On the basis of the follow-up reports, institutions seem to have invested substantially also in post-audit development work. The development of quality systems has been linked with the on-going organizational reforms and renewals of operations management and, thus, supporting the changes. In both higher education sectors, institutions have concentrated in their post-audit development work on the improvement of their management systems, feedback systems (regarding student, working life and alumni feedback) and societal interaction (including greater participation of external stakeholders in quality work and the definition of key partnerships). Participation of students and external stakeholders in the development of operations have been enhanced and supported.
In the university sector, the improvement of management systems has been manifested in the strengthening and gelling of the strategic work, in a growing awareness of the importance of strategy, and in a reconstruction of operations management. Universities find their strategies now substantially more concrete and goal-oriented. Quality management is better linked to strategic planning and management as well as operations management. Another distinctive finding is that whereas UASs have focused in their post-audit development work on simplifying and streamlining the quality system and in developing performance indicators and strategy management performance tools (such as the Balanced Scorecard to keep track of the execution of activities and to monitor the consequences arising from these actions), universities have focused on systematizing the quality system and making it into a more coherent whole. Moreover, several UASs report on the link between the quality system and the improved results of their activities (regarding, e.g., dropout rate as well as progress and completion of studies), whereas this link is almost absent in the universities’ reports. In the UASs’ reports, quality work is viewed more often as consolidated and more integrated into everyday activities.

5.2 New operational and quality cultures

As stated in Section 4.1, most importantly, preparations for the audit and the audit itself have resulted in completely new operational and quality cultures in the institutions. This is obviously shown in more consistent and clarified procedures. Operations are planned and developed on a more long-term basis and more extensively from the premises of students and external stakeholders. HEI personnel are more aware of the importance of equal and fair treatment of students and expectations of various stakeholders. According to UASs, preparations for the audit meant a significant leap into the consolidation of quality management and quality culture, although the development of quality systems had started already in the 1990s in the UAS sector.

The establishment and development of quality culture has been enhanced by improving and systematizing communication within institutions and to external stakeholders (including more informative and functional intranets and internets). Institutions have invested in dissemination of good practices within and between the institutions. There is more cooperation within institutions between different units and between higher education institutions. Benchmarking activities have increased. There are also active national networks of quality managers in both sectors.

5.3 New evaluation cultures

During the first audit round, there has been a shift to a new evaluation culture in the HEIs. External evaluations are now seen as more significant tools in the development of activities. International evaluations and accreditations have been utilized to develop institutions’ degree programmes and to get international recognition for the quality of their programmes. In the university sector, the new evaluation culture is manifested especially in regular external evaluations of research and teaching by international review panels organized by the universities themselves. For example, many universities have organized Research Assessment Exercises and Teaching Evaluation Exercises. In most universities, the emphasis has also been on the development of recruitment procedures and researcher careers, e.g., by establishing a tenure track system. The quality management of doctoral education and the involvement of doctoral students in the quality work have also been enhanced.

6 Institutions’ aspirations for the future

In their reports on post-audit development work, HEIs are also requested to ponder the question of what kind of evaluations would benefit them the most in the future. According to the reports submitted to FINHEEC during the years 2009-2013, institutions’ aspirations are twofold. On the one hand, the principle of enhancement-led evaluation is endorsed and institutional audits are found to be greatly beneficial in the development of activities by both higher education sectors. It can be said that at least at the institutional level, there exists a feeling of ownership of the audit enterprise.
On the other hand, some institutions in both higher education sectors feel that in globalizing higher education and increasing international partnerships, audits and subsequent quality labels are not sufficient in demonstrating the high quality of an institution to the partners and, therefore, degree programmes should be accredited either by FINHEEC or by international actors. According to the institutions, this would not only facilitate Finnish education export but also enable the building of joint and double degrees in the existing partnership networks. In some subject fields, especially in business and technology, institutions’ focus in the future lies on quality labels provided by international accreditation bodies. However, some institutions state that if an institution’s quality system is functioning, it is quite effortless to get accredited. That is, the Finnish audit model guarantees that institutions have done such groundwork that enables them to also employ other assessment frameworks.

The majority of institutions in both sectors view benchmarking as an extremely valuable method in providing an opportunity to focus on some specific areas of activities and in disseminating good practices within and between institutions, both nationally and internationally. National benchmarking would also improve cost-efficiency: due to financial cuts and the reform of higher education, institutions have common challenges, which could be tackled in cooperation by developing, e.g., common operations models and data management systems. A further advantage of benchmarking is that it involves personnel from different organizational levels.

On the basis of the follow-up reports, UASs in particular desire more result-oriented (including learning-outcome-oriented) evaluations. Especially in the university sector, there is growing criticism of evaluations among the personnel. Universities feel that it is important that their key operations are not “suffocated” by different evaluations, but that they should form a coherent, controlled and coordinated whole. Therefore, some institutions have established a long-term evaluation scheme aimed at preventing overlaps and creating purposeful cycles for the evaluation of operations. The need for decreasing the workload of evaluations conducted by the institutions themselves and evaluations required by external parties is also reflected in the studies by Haapakorpi (2011) and Ala-Vähälä (2011). On the whole, there is a consensus that the versatility of FINHEEC’s evaluation types should be maintained or revived. In addition to current audits, there is a clear need in both sectors for thematic and subject specific evaluations as well as the promotion of excellence in education.

7 Conclusions

The quality of education continues to be a core question in the creation of competitive, common European Higher Education Area. Finland's strengths in the field of education and education export are a competitive education system and a good reputation internationally. Education is traditionally highly regarded in Finland, and Finnish education has been quite successful in international rankings such as the PISA evaluation (Programme for International Student Assessment). This has brought enormous interest in the Finnish education system as a whole, and Finnish HEIs have taken their first steps in education export.

On the whole, the Finnish audit system can be considered a success. The findings in this study support the idea that audits as enhancement-led evaluations have received wide acceptance in the field. Institutions and FINHEEC mutually trust one another, and communication between them is open and supportive. The first audit round obviously was a huge endeavour for the Finnish HEIs. It is remarkable that Finnish HEIs have established, simultaneously with extensive change processes in the field of higher education, comprehensive quality systems that provide tools to develop activities as a whole and that benefit the personnel and students in their everyday actions. There is no doubt that the audits have contributed to the development of Finnish higher education. They have clearly changed quality and operational cultures in HEIs and increased cooperation within the whole field of higher education. Quality work has gathered people together to discuss and share ideas, and this has fostered a sense of community and a general commitment to the institution. Institutions have been inclined to learn from one
another and share information and good practices with one another and between the two higher education sectors. This has also enhanced mutual understanding and collaboration between the sectors.

It is evident that the principle of enhancement-led evaluation should be fostered and cherished at least in some form and scale in the future, too. FINHEEC's audits currently have a clear role in ensuring continuity of quality work within HEIs and the quality of Finnish higher education as a part of the European Higher Education Area. One focal challenge that needs to be considered thoroughly is how we are able to secure the position of an enhancement-led evaluation framework when evaluations are increasingly used as tools for control, competition and rankings in the international fora.

As a second round of audits was launched in 2012 with an audit framework similar to the one applied in the first round, it is an apt time to carefully examine the emphasis, versatility and alignment of FINHEEC's evaluation activities so as to best serve the needs of HEIs. Currently, universities in particular undergo numerous different evaluations and reviews, which even overlap to a certain extent. Although the audit system has the support of HEIs and the positive effects of the audits are recognised by the institutions, criticism of audits as burdensome and the whole national evaluation system in general cannot be overlooked when deliberating the direction of Finland's future evaluation policy.

The results of this study suggest that the versatility of FINHEEC's different evaluation types should be fostered and, in addition to the process-oriented audits, there is also a need in the institutions for evaluations that deal with the quality of education itself. Due to the on-going changes in higher education, further considerations are needed to explicate the current roles and responsibilities of the actors of the national quality assurance system: the Ministry of Education and Culture - HEIs - FINHEEC. Furthermore, since Finland is such a small country, there is a need for more cooperation and coordination between various evaluation organisations and which cross the boundaries between education sectors and between education and research.

References
Messages about impact from 10 years of the Scottish enhancement-led approach to quality

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ABSTRACT: A meta-study of reported work on the implementation of the Scottish Quality Enhancement Framework (QEF) from 2003 to 2013, with the objective to explore reported impacts. A brief description is provided of the Scottish context, elements of the QEF, and the implementation journey. Impacts are considered for each element of the QEF. Messages are summarised with reference to the literature on quality policy in higher education. These are first, there has been real impact, and that significant factors are: the aligned nature of the framework; right level of prescription; reflexivity; consensual ownership and development; a commitment to the long run.

1. Introduction

1.1 Objectives

The key questions of the research are:
what are the reported impacts of the national policy on quality enhancement in Scotland?
and from this, what are the key messages?
The objective is to provide a summary analysis that will enable readers to consider and locate their own experiences and ideas about quality enhancement, and inform future practice.

1.2 The research

The research is informed by a meta-study of reported work on implementation and evolution of the national policy for enhancement in Scotland. This includes consideration of information from Universities-Scotland, the Scottish Funding Council, Quality Assurance Agency Scotland, Scottish Higher Education Enhancement Committee, and students participation in quality scotland (sparqs). The analysis is from the perspective of a participant who was closely involved in development and implementation of the policy at both national and institutional levels.

2. The Scottish context

Scotland has devolved responsibility for higher education, which has led to different and distinctive approaches to funding and quality. Relationships between Scottish and English sector approaches are a significant contextual factor for the study. In particular, the extent to which some Scottish universities want to be seen also as UK universities, and not to be excluded from reporting systems that originated in the English sector.

The Scottish university sector is compact and diverse. It is compact in size with 19 institutions, and in geography. This makes it relatively easy for sector-level activities to include representatives from all institutions. There is considerable diversity of institutions in terms of size and mission, but this has not inhibited inclusive engagement with the QEF. For links to more information on the Scottish university sector and approach to quality see the web-sites of: Enhancement Themes, Quality Assurance Agency Scotland, the Scottish Funding Council, Universities Scotland and sparqs.

3. What is the Scottish Quality Enhancement Framework?

The Scottish QEF consists of five inter-related elements, summarised in Table 1.
Table 1: The Scottish Quality Enhancement Framework

<table>
<thead>
<tr>
<th>A comprehensive programme of subject reviews to be run by institutions themselves</th>
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<tbody>
<tr>
<td>Enhancement-led Institution-level Review (ELIR) which will involve all Scottish HE institutions over a four-year cycle</td>
</tr>
<tr>
<td>Improved forms of public information about quality based on addressing the different needs of a range of stakeholders including students and employers</td>
</tr>
<tr>
<td>A greater voice for student representatives in institutional quality systems supported by a new national development service</td>
</tr>
<tr>
<td>A national programme of quality enhancement themes aimed at developing and sharing good practice in learning and teaching in higher education</td>
</tr>
</tbody>
</table>

For more information see QAA (2013) *Quality Enhancement Framework in Scotland*, which includes links to information on each element.

4. The journey

4.1 Origins

The QEF was launched in 2003, informed by evaluation and reflection on previous approaches to quality assurance in Scotland over the period 1992 to 2002.

4.2 Keypoints in the journey

Significant milestones are:
- three cycles of external review (ELIR) of all institutions
- a sequence of 9 Enhancement Themes, plus supporting activities
- formation of the Scottish Higher Education Enhancement Committee (SHEEC) to support and promote quality enhancement, including planning and direction of the Enhancement Themes
- ENQA reviews of QAA in 2008 and 2013
- the Joint Quality Review Group (JQRG) working and report in 2007, associated with the creation of a new, merged Scottish Funding Council

4.3 Evaluation and reflexivity

A significant aspect of the approach has been the extent of evaluation and review that has been designed-in, and which continues in various forms. These include:
- the Joint Quality Review Group report, see JQRG (2007)
- external, independent evaluation of the Enhancement Themes, see CSET (2008)
- SHEEC evaluations and studies, including Supporting and managing enhancement, and Learning from International Practice
- the *Learning from ELIR* series of evaluations and reports, sharing findings and effective practice on thematic topics identified in ELIR reports, see SHEEC (2013)
- Universities-Scotland Teaching Quality Forum Good practice reports (2009 a,b)
- evaluations of student participation and engagement in quality, see sparqs (2012). Outcomes from these evaluative activities have shaped evolution of the QEF (see below) and have informed this study.

4.4 Contextual developments

Other things were going on, which shaped the context in which the QEF was implemented; key points are summarised below:
the merger of the previously separate funding councils in Scotland to create a single Scottish Funding Council, responsible for public funding to both the university (higher education) and college (further education) sectors
developments in the English higher education sector, in particular the introduction of the National Student Survey, and more recently the Key Information Set. These have also been adopted within the Scottish sector, initially voluntarily by a number of Scottish universities who did not want to be "left out" of NSS reporting. This spread rapidly across the Scottish sector
the introduction of tuition fees in the English sector
continuing assessment of research performance within UK universities
a general rise in use of rankings of higher education institutions, which predominantly view research as the hallmark of esteem
public sector funding pressures on universities
recent introduction of Outcome Agreements by the SFC
QAA Scotland's (2012) report includes additional and more specific information on context.

4.5 Continuity of the QEF over 10 years

A simple, but very important message is that the QEF has continued to exist, and be implemented over a 10 year period. All of the original elements are still present and recognisable and there have been no significant additions of elements. None have been static; all have evolved in specific ways, shaped by experience, evaluation, reflection and contextual developments.

The sector has continued to own and advocate the QEF. This was particularly evident around the period of the merger of the funding councils, with suggestion of a possible return to assurance-led approaches, which led to the JQRG. There was strong, concerted support from Universities-Scotland, QAA Scotland, and the student representation organisations for continuation of the enhancement-led approach. This sector-level ownership has also been identified in external evaluations and other studies, see CSET (2006, 2009) and Saunders (2009).

Studies of quality-related policy at wider and international levels indicates a tendency for political and economic dimensions to routinely re-shape and revise national approaches to quality in publicly funded higher education. This suggests that continuity of the Scottish QEF over 10 years is in itself a significant outcome.

5. Impacts

5.1 General impacts

External evaluations report that in general, the QEF is working, and that there has been real improvement. The most recent reported external evaluation CSET (2010) concluded:

"The three datasets all suggest that there has been a continuing overall positive experience of the QEF. … The results indicate a widespread view that there has been a real improvement in teaching and learning quality over recent years with increased involvement from academic staff in quality enhancement … and a very strong commitment from academic staff to the improvement of teaching"

An analysis and review of progress by QAA Scotland (2012) concluded:

"Since 2003, there have been significant positive developments in quality across the sector. Overall, the sector is well-placed to identify and address the likely future challenges in learning and teaching."
"There has been a culture shift from assurance to enhancement which, amongst other things, means the sector is proactive in identifying areas for future development. This shift towards enhancement can be characterised by an open approach, a focus on the future rather than past performance, a commitment to collaborating and sharing good practice, and institutional ownership of forward plans. The national programme of Enhancement Themes has had considerable positive impact across a wide range of institutional strategy and practice."

and identified the following key achievements:
- an effective culture change across the sector, assurance to an enhancement focus, with the commitment and ownership of senior managers
- all institutions have secure arrangements for managing academic standards and quality of the student learning experience
- all institutions are committed to effective evaluation and the use of nationally agreed reference points in institution-led review, ELIR and evaluation of Enhancement Theme activity
- significant success across the sector in engaging students in quality, including the majority of institutions having a strategic partnership with the student association and students been regarded as partners in shaping their own learning
- the student experience at all institutions has been enriched in a wide variety of ways there is a systematic international focus at sector and institutional levels
- the profile and start this of learning and teaching has been raised since 2003 in the Scottish university sector
- all institutions are committed to clarity and public reporting and have systematic arrangements were ensuring the accuracy of information put into public domain.

Within institutions, there has been a trend for internal quality processes to mirror the external QEF, with greater emphasis on enhancement, engagement of students, and identification and sharing of effective practice. See the "Learning from ELIR reports".

The number and scope of people explicitly engaged in "quality" have widened, and there is increasing interaction between them. Quality enhancement work, in particular engagement with the Enhancement Themes, is including staff with roles in quality assurance, educational/staff development, academic departments and support departments. Students, in particular elected representatives, are routinely engaged as partners in committees, discussions, projects and reviews at national, institutional and subject levels.

5.2 Impacts of each element of the QEF

Institution-led reviews

Reports of the operation of institution-led reviews confirm that institutions continue to take their responsibilities for internal review seriously, and highlight a number of impacts. Internal review processes are evolving to reflect the principles and focus of the QEF, but with no "softening", as identified by QAA (2009 p4) and (2010 p5)

"institutional quality management processes continue to provide robust assurance of quality in academic standards, but increasingly assuming an enhancement function"  
"the institution-led subject review process provides confidence of institutions' ability to manage quality and maintain standards at the subject level"  
"an increasingly learner-centred approach is emerging to increase student representation and engagement in institution-led quality review processes"

Enhancement-Led Institutional Review (ELIR)
Four aspects of impact are significant in the evaluation reports and descriptions of the method.

A reported culture shift in institutional self-evaluations:

"We have also noticed, though, that when it comes to enhancement-led institutional review (ELIR), institutions are increasingly willing to lay out areas of imperfect practice and publicly consider ways in which they could improve on them in coming years. Perhaps a shift from the concealing behaviours associated with the previous quality assurance regimes operating in UK HE in the late 1990s towards - and let it be clear that this is a direction of travel - disclosure of areas for improvement is the biggest cultural shift in thinking and the most distinctive feature of Scotland's fresh thinking about quality". CSET (2006 p5)

Overall positive views by institutions, but with some qualifications. In general, institutions are positive about the focus on enhancement, and the benefits of the self-evaluation phase. However some report that the review visits can still feel more like an assurance audit, with less focus on enhancement than they had expected.

There has been a continuing concern to increase the focus on enhancement within the method, in particular during the review visits QAA (2012 p1):

"The adjustments in the ELIR method for the third cycle are, collectively, intended to provide a sharper focus on enhancement within the individual reviews."

There has been no softening of attention to quality assurance and academic standards - see comments above under "General impacts", also QAA (2012 p10)

Public information about quality

This is arguably the least defined and least developed element of the QEF, and the one in which the QEF would appear to have had limited impact. The external evaluation CSET (2009 p10 and 2010 p7) confirmed limited development in this element, and pointed to a contextual development external to the QEF (the National Student Survey) that appeared to be influencing this element:

"The overall sense was that the sector, in the rest of UK and not just in Scotland, has still not really worked through the implications of this dimension in terms of the current practices. There was a lack of clarity in the range, legitimacy, audience for, and use of, public information."

"In the area of public information, it was clear that in the view of most participants in the focus groups, at all levels, the National Student Survey (NSS) was the main embodiment."

However, the topic is a focus within ELIR, QAA (2013 p21) "management of public information", and QAA Scotland's (2012 p11) overview analysis noted trends in institutional management of public information, and came to a generally positive conclusion.

A greater voice for student representatives

This was a new approach that grew rapidly. The significance and success of this element is summarised in this quote from the external evaluation CSET (2009 p9)

"Student participation. In general, most informants regard student representation and participation as a successful and welcome aspect of the QEF with Scotland regarded by
some as leading the way in encouraging students to play a more active part in quality processes"

This element involved and developed in a dynamic way, embracing the concept and term of "engagement". A study by sparqs (2012) highlighted the developing position and role of students as partners in enhancing quality, and summarised and illustrated improvements (impacts) over the 10 years in the following areas:
strategic approach to improving course rep systems in partnership
course rep training and support
course rep events
departmental representation
gathering of responding to student feedback
student-led learning and teaching awards
partnership between university and students association
student involvement in formal review processes
national engagement.

National programme of Enhancement Themes

The Themes approach was a completely new idea and way of working, and the one within which most evolution and development has taken place over the 10 year journey.

External evaluation by CSET (2006 p18) of the early period from 2003 identified an uneven response:

"In the early days of the Framework's evolution, whilst quality enhancement themes were acknowledged as a good idea in theory, there were a number of concerns raised about their implementation. The main issue at the start was the timescale of the themes … Staff expressed concerns over addressing the themes in sufficient depth over such a comparatively short time-span."

A later external evaluation by CSET (2008 p6, p8), considered the seven topic Themes implemented over the period 2003 to 2008. This evaluation explored factors influencing impact, noting fit with institutional priorities, and identifying the two (then) most recent Themes The First Year, and Research Teaching Linkages as being particularly significant in almost every institution. Forms of reported impact were categorised as:

"visible effects … direct impact on practices or policies … changes to teaching practices"
"networks of practice … emerging through participants engagement with certain themes"
"awareness-raising … The value of the themes in raising awareness and debate of the theme-related issues at sectoral level. Having a common focus of attention across the whole sector is felt to be extremely beneficial"

The evaluation included a "then and now" analysis considering impacts from the commencement through to 2008, and identified impacts against the following indicators:
teaching staff have learned by using enhancement engagements as a resource relationship can be traced between enhancement themes and institutional policies and practices
a body of knowledge and research agenda are developed in Scotland around the enhancement themes
Themes are identified consultatively
the development of learning teaching themes is identified as a resource by academic managers
The point above about "awareness-raising" was commonly considered to be a real strength of the Themes approach, along with the focus of the themes and ownership and management:

"There is a strong sense that the QE themes are part of a distinctly Scottish approach to enhancement and that this adds to the sense of ownership"
CSET (2008 p11)

In 2008, there was a shift in the way of Theme working, with a move to a single, more integrative, theme running over a three-year period, including institution-based projects with sharing of outcomes through events and published case studies. In 2012 SHEEC developed a new Strategy and Vision, which included identification of priorities (for action and impact) for the period 2012-16:

5.3 Limited impact

It is important to acknowledge reported limitations in impact. Two aspects are significant: first, the extent of engagement by staff particularly at the "front-line", with impact on their routine day-to-day practice; second, measurement indicators of enhancement.

External evaluation of implementation of the QEF identified "a degree of 'patchiness' in the extent of engagement amongst academic staff" (CSET, 2009 p9). Saunders (2009 p94) considers permeation of a new approach in terms of shift in day-to-day practices, and questions how engagement at the "frontline" might be encouraged. The evaluation by CSET (2010 p11) reports competing pressures including staff time, and recognition and reward of research rather than commitment to teaching.

The QEF does include a statement of Indicators of Enhancement; this was a request from SFC participants in the JQRG. These have been described as 'a challenge' (QAAS 2012 p6), not because they have been troublesome, rather that they have not been used significantly or found to be useful. This is identified as a topic for further work.

6. Messages

6.1 Ideas from research on impact of quality policy

Four ideas from published research about improvement and impact of quality policy are helpful in thinking about messages from the QEF:
reality, or appearance of improvement?
measurement of impact
conditions for obtaining impact
level of prescription of policy.

Harvey (2008 p1) summarises the reality / appearance issue:

"Currently, there is a lot of discussion about enhancement and much good practice goes on ranging from classroom initiatives right through to system-wide quality assurance processes. But are we really improving anything or are we just appearing to?"

The literature on quality in higher education emphasises the methodological difficulties of considering impact and causal relationships between initiatives and effects. In practice, researchers have had to take a broad perspective of impact. Stensaker (2007 p60) identified reported underlying conditions for obtaining impact as:
the close link between external quality assurance and internal change
the need to balance accountability and improvement
the importance of leadership and leadership involvement
the difficulties but also the gains by involving students and staff

He also commented:

"The twist concerning these conditions is, of course, that they can both stimulate and hinder impact. Hence, sensible external pressure, can on the one hand, create a much-needed impetus for change, while, on the other, ill-designed external quality assurance processes may only create resistance and turbulence"

Saunders (2009 p94, 98) has discussed the level of prescription of policy in terms of 'fidelity':

"In general terms, low fidelity means extent to which the vision or thrust is clear but generic enough for enactors to situate it in their own contexts of practices, circumstances and priorities"

"the lower the policy is on fidelity, the better it travels and is reconstructed or 'translated' on the ground ..."

6.2 Messages about enhancement from implementation of the QEF

The weight of evidence from reported evaluations, including those referenced and discussed in Section 5 of this paper, confirms that real, rather than apparent impact has been taking place, albeit with limitations. This suggests that first, the QEF is at the "sensible" end of possible approaches to external quality policy, and can create conditions that promote positive impacts, a view endorsed by Harvey (2008 p8):

"I'm optimistic that new approaches that reinstate trust and focus on student learning, such as in Scotland, will impact on transformative learning."

I would identify the following as significant aspects of the QEF that are particularly significant in creating the conditions that promote positive impacts.

First, it is a framework, a coherent set of elements, aligned to a common vision of purpose, which can interact constructively. The QEF encompasses all four "conditions for obtaining impact" identified by Stensaker (2007, p60).

Second, it is at the right level of prescription, described by Saunders (2009 p98) as low fidelity with high transferability:

"The QEF was adept at this, the need to build on a high level of consensus and 'ownership' of the policy shift such that practitioners were confident enough to modify and adapt the policy messages to local circumstances"

Third, reflexivity, with evaluation from the outset, and continuing evolution of the elements, informed by experience and evaluation.

Fourth, consensual ownership and development of the framework, engaging a wide range of players at national, institutional and individual levels.

Fifth, it has been seen as a journey for "the long run" CSET (2007, p5), and has been able to continue over the 10 year period to-date. A personal hope is that it will continue for the future.

References

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CSET, 2009. First annual report of the evaluation of the SFC quality enhancement framework to its QEF Evaluation Steering Committee. Lancaster: CSET


The potential to enhance? The use of Teaching Development Grants in South African higher education

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ABSTRACT:
This paper uses a framework developed from Bhaskar's critical realism and Archer's social realism to explore the potential of a grant intended to enhance teaching and learning in South African higher education. The analysis shows how the potential of the grant to function as intended is compromised by a lack of capacity at a systemic level to work with teaching and learning and also by a paucity of theory used to conceptualise the field more generally.

1 Introduction

Since the late 1980s when it first became apparent that a peaceful transition to democracy would be possible, the South African higher education system has been transfixed on the need for 'transformation', a term that refers to the need for change in both the character and conditions of the system so that it can contribute to a more equitable dispensation. Policy work has therefore focused on the development of a single, coherent higher education system to replace the fractured system of apartheid.

In spite of a plethora of policy development, however, it is still apparent that the system serves some better than others. Participation rates for white social groups are approximately 60%. In spite of constituting the vast majority of the population, Black social groups, on the other hand, enjoy participation rates of only 12%70 (Scott et al., 2007). While access to higher education remains skewed, figures for success reveal even greater disparities. A study of the cohort of students entering South African universities in 2000 (Scott et al., 2007), for example, shows that, regardless of the institution at which they are registered, the subject category of their programme or the qualification for which they are registered, black South Africans consistently fare less well than their white peers. Given that participation from Black and Coloured social groups stands at only 12%, it can be seen that the gains derived from nearly two decades of policy work are not distributed equally since black South Africans simply are not completing their studies at the same rate or in the same time as their white peers. This has led to the proclamation of a 'crisis' in teaching and learning in popular discourses related to higher education. It has also led to a decision, on the part of the Higher Education Quality Committee, the body responsible for quality assurance and promotion in South Africa, to focus its next round of quality related work on the enhancement of teaching and learning.

One of the most influential policy documents shaping the reconfiguration of the South African higher education system was the 1997 Education White Paper (MoE, 1997). This document, aptly entitled 'A programme for the transformation of higher education', identified the need for 'goal oriented' funding to aid the transformation process. As a result, a new incentive-based, funding formula for public higher education was introduced into the system in 2004 (MoE, 2004). The new formula included the use of Teaching Development Grants (TDGs) as a means of enhancing performance across the system. In the context of poor performance of the South African system discussed above, this paper focuses attention on the potential of TDGs as mechanisms for enhancement. This paper begins by describing the incentive-based funding formula before moving on to provide a theoretical account of the use of TDGs based on a framework developed from Bhaskar's (1978, 1979) critical realism and Archer's (1995, 1996, 1998, 2000) social realism.

70 The figures for Coloured and Indian social groups are 12% and 51% respectively (Scott et al., 2007)
The paper then uses this framework to analyse the use of the grant over time and to evaluate its potential for enhancement in the future.

2 The funding of post apartheid higher education in South Africa

As indicated above, the introduction of a new funding framework in 2004, marked a change in the way state funding for public higher education in South Africa was conceptualized and operationalized. Key to the new framework was the idea that it should contain 'mechanisms which a government can use to steer a higher education system towards the achievement of national transformation goals' (Ministry of Education, 2003) along with the linking of funding to national and institutional planning. Planning processes involve the national Department of Education i) analyzing institutional enrolments and graduate outputs over a four to five year period and ii) consulting with universities in order to determine future enrollments over three year rolling cycles. Funding is then allocated to universities on the basis of this process in the form of i) block grants and ii) ear marked grants.

Block grants for teaching are provided as i) input grants and ii) output grants. The input grant is calculated according to enrolments negotiated with the national Department with over enrolments resulting in 'unfunded' heads. Input grants are weighted according to subject category and are paid two years in arrears. Output grants are calculated by comparing the actual number of 'non-research' (i.e. not postgraduate) qualifications produced by a university with the normative totals the institution should have produced on the basis of national benchmarks. In cases where a difference occurs between actual output and national norms, the new funding framework (MoE, 2004) provided for the allocation of a TDG. Initially, the proportion of the output block grant to be paid as TDGs was calculated according to outputs across the system as a whole. Institutions were then allocated proportional shares in this proportion depending on their own outputs. As the account below will show, however, this was later to change.

3 A framework for understanding TDGs

In South Africa, Luckett's (2007) call for the use of a 'depth ontology' in relation to the methodology used to work with quality assurance and enhancement has led to other work which has used Bhaskar's (1978, 1979) notion of a 'stratified reality' to understand the effects of quality related efforts (see, for example, Quinn & Boughey, 2009; Boughey, 2009, 2010; Boughey & McKenna, 2011a,b). Bhaskar's (ibid) work allows us to distinguish between different layers or strata in the world we seek to understand. The first of these layers, the Empirical, is the world reached directly by the senses and thus relates to observations and experiences. As such, it is understood to be transitive and subjective. The second layer, the Actual, is the layer of events from which experiences and observations emerge. This layer is also understood to be transitive. The final layer, the Real, is the area of interest for critical realist researchers since it is understood to consist of an array of relatively enduring generative structures and mechanisms from which the other two layers emerge. As living beings we exist 'in' the three layers constantly but can only access the Empirical and the Actual empirically.

Critical realists acknowledge their own fallibility in exploring the interplay of structures and mechanisms at the level of the Real but, nonetheless, insist on the possibility of identifying a 'truth' or 'reality' independent of human action and thought. Bhaskar's work is 'critical' in the sense that it is concerned with the pursuit of social justice. In the case of this paper, TDGs would be understood as structures at the level of the Real with the potential, when activated, to lead to the emergence of events at the level of the Actual and experiences at the level of the Empirical. An example of an event might be the emergence of a staff development programme at a university where work intended to enhance the capacity of academics as professional educators in higher education had not previously been conducted. The experiences and observations of academics in relation to
this programme would then be understood to occur at the level of the Empirical. The relativism of these experiences would, however, be accountable as a result of interplay of the structure of the grant with other mechanisms at the level of the Real. It is in exploring this interplay that Archer’s (1995, 1996, 1998, 2000) work is particularly useful. Archer’s social theory offers an array of conceptual tools to explore the level of the Real. This paper, however, will only draw on her insistence on ‘analytical dualism’ as a means of countering conflation between what she terms the ‘parts’ and the ‘people’. Archer (1995) affords ontological status to each of the domains of structure, culture and agency arguing that each possesses powers and properties with the potential to contribute to the emergence of events and experiences. As a result, she insists on the temporal separation of each domain in order to discover ‘whose conceptual shifts are responsible for which structural changes, when, where and under what conditions’ (Archer, 1998: 361, original emphasis). Work using Archer’s analytical dualism therefore aims to tease apart the domains of structure, culture and agency even though, in practice, the interplay between them is acknowledged. It is this interplay that the paper now seeks to explore.

3 Teaching development grants over time

When TDGs were introduced in 2004, the framework allowed for a ‘migration period’ whereby grants were simply added to the block output grant and universities were ‘entitled to use these additional funds for purposes other than teaching development’ (MoE, 2004:10). This presumably was to allow institutions to accustom themselves to the incentive based nature of the new formula. In 2006, however, policy changed in order to require universities to submit proposals for the use of the grants. The document in which this change was announced (MoE, 2006) did not, however, detail criteria for the use of the funding. Considerable agency was therefore allowed to institutions and institutional leaders to decide how money, symbolically intended for teaching development, should be used. The first cycle of quality assurance work in South Africa commenced in 2005. Boughey’s (2009, 2010) and Boughey & McKenna’s (2011a,b) analysis of teaching and learning across the system uses data generated by institutional audits in this first cycle. Significant in this analysis is the identification of the paucity of theory used to account for teaching and learning data and the location of responsibility for failure in factors inherent to the individual student. Boughey (ibid) and Boughey & McKenna (ibid) identify a discourse, for example, termed the ‘discourse of the autonomous learner’ that constructs students as being autonomous of the wide range of social and cultural contexts into which they were born and raised. In constructing students in this way, the discourse strips away the idea that some social and cultural contexts better prepare individuals for both schooling and higher education promoting instead an understanding that all education is socially, culturally and linguistically neutral. In a country of such enormous difference as South Africa, this is clearly problematic.

More specifically, the discourse of the autonomous learner then allows failure to be constructed as resulting from factors inherent to the individual. An example of this phenomenon occurs in relation to the use of ‘approaches to learning’ research (see, for example, Marton & Saljo, 1984) and the construction of students as ‘surface’ rather than ‘deep’ learners in order to account for failure. As Haggis (2003:90) points out, the original ‘approaches to learning’ research linked conceptions of and approaches to learning to ways in which students ‘perceived the context of learning’. In South Africa, attention has been paid to the way students ‘misperceive’ academic contexts (see, for example, Boughey 2000, 2005) because of understandings carried from home backgrounds into the university. This then leads them to behave in ways that are unproductive of academic learning. The issue is not that they themselves are inherently ‘inferior’ learners but rather that they are misreading the context. Boughey (2009, 2010) and Boughey & McKenna (2011a,b) show how, in documents they examined for the purposes of their research, the contextually embedded ‘approaches to learning’ identified in the original research are reconstructed. Haggis (ibid:91) speaks to this phenomenon more broadly:
Deep approaches to learning' becomes 'deep learning', and ultimately 'deep processors' (Mitchell, 1994), or versions of this such as 'engagers' (Kember & Yen, 2001). In the latter case deep and surface approaches are seen as a form of predisposition or 'learning style', which moves the concept into the confused area of the differences between fixed traits and/or changeable strategies denoted by terms such as cognitive style, learning style and learning strategy . . .

The so-called 'language problem' was constructed in a similar vein. In South Africa, English is an additional language for the majority of students in the higher education system. A wealth of South African work (see, for example, Boughey, 2005; Jacobs, 2007; McKenna, 2004; Thomson, 2008) has shown that the difficulties experienced by students in using English as a language of learning and teaching in higher education stem, not from lack of mastery of the forms of the language per se, but rather from a failure to appreciate the socially embedded 'rules' of academic discourse and the values which underpin them. In the documents examined by Boughey (2009, 2010) and Boughey & McKenna (2011a,b), however, the term 'academic literacy', which following Lea & Street (1998:158) understands 'student writing and learning as issues at the level of epistemology and identities rather than skill or socialisation', was misappropriated to refer to 'language skills' or language proficiency with the result that interventions initiated to address students' language related experiences were arguably inappropriate.

The discursive construction of students' experiences in such poorly theorized ways can be related to a failure to develop a cadre of practitioners in the field which, in South Africa, is known as Academic Development. Although this field has long worked with teaching and learning in higher education, often in highly critical ways, over the years instability within it has resulted in many practitioners leaving for more secure or more rewarding employment prospects (Boughey, 2007).

While universities were allowed to submit proposals for the use of teaching development grants without any criteria being in place, it is likely that the discursive constructions of students' experiences identified by Boughey (ibid) and Boughey & McKenna (ibid) led to funding being used for the sort of ad hoc initiatives long critiqued within the South African Academic Development movement (Boughey 2012). Such initiatives leave mainstream teaching and learning untouched in favour of a range of support and development initiatives which attempt to 'fix' students' problems outside disciplinary contexts whilst, at the same time, ignoring problems in curriculum design, assessment and so on. The lack of criteria for proposals arguably can be related to structural capacity at a national level. Unlike other countries in the world, South Africa has never succeeded in establishing a national body (such as the United Kingdom's Higher Education Academy) with capacity to advise on or work with the enhancement of teaching and learning in higher education. As a result, the Department of Education, the entity tasked with administering the grants, had no resources on which to draw for advice for possible criteria. In critical and social realist terms, one can thus see that the interplay between the exercise of agency, TDGs as mechanisms in the domain of structure and discourses in the domain of culture theorizing teaching and learning impacts on the possibility of the emergence of more positive events at the level of the Actual and experiences and observations at the level of the Empirical.

In 2006, a Task Team was appointed 'to prepare advice for the Minister on a future teaching development policy and on an allocation mechanism for the distribution of these grants' (MoE, 2006). The Task Team, which reported in 2008 (DoE, 2008), recommended a number of important changes to the policy on the allocation and use of teaching development grants. Significant was a recommendation to change the way funding for the grants was allocated by de-linking the calculation of the amount available for TDGs from the total number of outputs produced by the system as a whole. Rather, the Task Team recommended that a top-slice of 20% from the total teaching output block grant should be allocated to TDGs. The reason for this recommendation was to stop universities receiving greater rewards, through the
allocation of a TDG, the more they failed to meet national norms for teaching outputs. The recommendation of the Task Team meant that an 'agreed minimum level' (DoE, 2008:19) would generate the maximum TDG to be paid to any university with no reward for performance dropping below this. This change in the way TDGs were allocated was phased in from 2010.

A second recommendation was that all institutions should be eligible for a grant regardless of having met national benchmarks. This was important as it signals a construction of teaching as needing to be developed on an ongoing basis in a higher education system undergoing change. In the early 2000s, policy work resulted in the introduction of three distinct institutional types: the 'traditional' university, the university of technology, offering mainly vocational programmes at diploma level and the 'comprehensive' university mandated to offer a mix of traditional and vocational programmes at both diploma and degree levels. In addition to being differentiated by type, universities also position themselves with vision and mission statements. As Boughey (2011) points out, there is a need for teaching and learning to be 'fit for purpose' in the sense that it is aligned with both institutional type, the vision and mission it has set for itself as well as with the needs of the students it admits. There was little evidence of even a consciousness of the need for such alignment in the documents examined by Boughey (2009, 2010) and Boughey & McKenna (2011a,b). The proposal that all institutions should receive a TDG was accepted with the result that the grants became available to all universities in the 2012 academic year.

In 2009, the Ministerial Funding Statement for the 2009/10 to 2011/12 academic years (MoE, 2009) functioned to structure the use of the grant more purposively than had hitherto been the case. According to this document, 'funds must be used in targeted ways to improve the success and graduation rates of disadvantaged students' (ibid:13). This would involve universities identifying ... those programmes in which the graduation rates of disadvantaged students are significantly lower than those of advantaged students. They would also have to identify the "killer" courses within those programmes; ie those which are failed by large proportions of disadvantaged students (ibid:14).

Once these programmes and courses had been identified, universities were required to submit proposals for interventions to remedy their deficiencies. Even more significantly, they were required to provide progress reports detailing implementation and showing the impact of the intervention on success rates.

A number of important discourses can be discerned in relation to the TDGs in this document. The first is a discourse requiring greater accountability on the part of universities through the use of monitoring. The second relates to what is arguably a very 'narrow' construction of teaching development involving enhancement for improved success rates. One of the easiest ways to impact on success rates is to reduce assessment standards. In principle, it would therefore be possible to 'enhance' teaching by limiting learning. While there is no doubt that this is not what was envisaged, the construction of teaching enhancement in the document points to limitations in capacity in the Department of Education which was responsible for administering the grants.

A second problem with the discursive construction of teaching development relates to the construct of the 'disadvantaged' student. During apartheid, the term 'disadvantaged' was applied to black social groups since all were structured into inferior positions in society by policy and legislation. In education, the majority of black social groups were limited to accessing schools and universities designated for them. A small number of individuals were able to access private education, which was not subject to the constrictions of apartheid, and an equally small number were able to access institutions of higher education designated for white social groups using the so called 'permit system' which allowed black students access

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71 In the 2009/10 academic year, of the total amount available to fund teaching development, 66.2% went to one poorly performing institution, South Africa's main distance provider of higher education. The second highest allocation was 8.5% of the total. Nine universities, which had met the benchmark, did not qualify for teaching development funds while the remaining twelve universities received the balance of 25.3% of the total amount available.
to programmes that were not offered on black campuses. Following the 1994 democratic
election, the growth of a black middle class has been a marked phenomenon. Recent
research (UCT, 2013), notes that the black middle class almost doubled in the period 2004-
2012 to outnumber the white middle class by 1.2 million. While such measures are obviously
crude, this research does indicate that, post election, skin colour is no longer the
determinant of disadvantage. Rather social class needs to be taken into account.
This is especially the case in higher education where prestigious historically white
universities all seek to recruit black students. Students meeting entrance criteria at these
institutions tend to have been educated either at private schools or at what are termed
‘former Model C’ schools - historically white state schools that charge relatively high fees in
order to enhance teaching provision. In such cases, black students might enjoy as much
‘advantage’, as traditionally defined, as their white peers yet might still not do as well as
them. If this is the case, then substantial challenges exist for the way academic support and
development is conceptualized.
In some institutions, moreover, it would be possible to identify all programmes and courses
as problematic given low levels of performance across the board. In these cases,
interventions would need to be conceptualized at a scope broader than the course or the
programme and, ideally, would need to encompass wide-scale curriculum change\textsuperscript{72}. The
identification of problematic programmes and ‘killer’ courses is thus considerably more
complex than the document would make it seem. Even more importantly, the development of
interventions both in terms of their character and scope would appear to require
sophisticated conceptualization and theorization that might not be readily available evenly in
the South African system.
The next comment on TDGs in national documents comes in the Ministerial Funding
Statement for the 2012/13 and 2013/14 years (MoHET, 2011). By this time, the national
Department of Education had been split into two and a Minister of Higher Education and
Training appointed to deal with all post-secondary education. This document notes that:
Teaching development funds are redress funds . . . The aim of the funds is to provide
financial support mainly to universities with a low graduation rate . . . The focus of teaching
development funds is to target the reduction of annual unsuccessful students . . . The target
is therefore to increase the annual success rate. These increases should ultimately lead to a
higher graduation rate (MoHET, 2011:13).
The construction of the TDG as ‘redress’ funding calls on the discourse of disadvantage
noted earlier in this section. Here, however, the discourse refers specifically to universities
that are ‘disadvantaged’ by the low graduation rates of their students. In practical terms, this
would mean the targeting of the grant at historically black universities, which continue to
draw their student body from poor, black working class communities. In many respects,
therefore, this discourse contradicts the acceptance of the idea that all universities should
receive a grant because of the need for teaching to be updated on an ongoing basis. No
criteria for the use of the grant are provided in the document with the result that it must be
presumed that the constructs of ‘killer courses’ and ‘problematic programmes’ still stands in
the belief system of the national Department. The construct of the ‘killer course’ appears to
be affirmed by the idea that funds should be used to target annual success rates in order to
achieve a higher graduation rate in time. Comments made above in relation to the breadth of
the change needed in universities where overall performance is poor pertain here.
Also of significance is a discourse of concern at poor graduation rates within the system as a
whole. Levels of performance identified by, for example, Scott et al. (2007) and Letseka &
Maile (2008) are clearly of concern in a country which seeks to subscribe to the ‘high skills
thesis’ (see, for example, Finegold & Soskice, 1988) in order to engage with a globalized
economy. The question is whether understandings of the way in which teaching and learning
can be developed to address this performance are sufficiently complex to achieve the goal of
increasing performance.

\textsuperscript{72} A Working Group convened by the Council on Higher Education is currently exploring the introduction of a four
year curriculum leading to diplomas and bachelor’s level degrees as a norm across the entire system.
The next change to the implementation of the TDG came in 2011 with the publication of a set of criteria for the allocation of the funding (DoHET, 2011). The criteria document is much more explicit about the use of TDGs and begins by outlining the historical uses of TDGs which include i) the development of the teaching expertise of academic staff ii) the provision of additional teaching support (mentors, tutors etc.), iii) the provision of resources to support teaching and iv) what the document refers to as 'student focused activities'. The document notes that many of these activities are 'the responsibility of institutions and which need to be/could be funded in other ways’ (p. 1). It also calls for increased monitoring of the use of TDGs noting that:

. . . [if clear targets are not set, and funds are not linked towards achievement of these, the lack of accountability unintentionally creates a situation where inadequate performance will continue to be rewarded' (ibid).

A 'way forward' for the use of the funds is then outlined which, apart from increased monitoring, includes:

. . . link[ing] the use of the funds explicitly and directly to teaching development [i.e.] the ability to work with students in ways that are responsive to student needs in order to enhance learning (DoHET, 2011:2).

Significantly, this will involve:

[p]osition[ing] the lecturer/teacher as the central figure upon which improved teaching and so improved learning outcomes rests. A greater proportion of the funds must be used to directly develop the teaching expertise of the lecturers (ibid).

A number of problems can be identified in relation to this construction of the purpose of the grant. In the first place, questions need to be asked about the extent to which the 'lecturer/teacher’ can be the ‘central figure on which . . . improved learning outcomes rest’ in universities with a historical legacy of poor infrastructure. Such poor infrastructure would include dysfunctional admissions processes, poor quality resources for teaching and learning, huge classes and so on. In critical and social realist terms, this construction involves privileging the agency of the individual at the expense of structure and culture in order to account for the emergence of improved outcomes.

A second problem relates to the ability, at both institutional and national levels, to work with the development of academic staff as educators. The failure to develop capacity in field of Academic Development, which assumes responsibility for this work, has already been noted. A number of universities, most notably the historically advantaged universities, have developed programmes leading to qualifications in teaching and learning in higher education. Capacity to work with all academics in the country is, however, severely limited unless private providers, who may have no experience of working in higher education or who may demonstrate very limited levels of theoretical engagement with issues related to teaching in higher education, are used. This is clearly a huge problem.

3 Conclusion

The critical and social realist analysis offered in this paper shows how the potential of the TDG to function as a mechanism leading to the emergence of enhanced teaching and learning in the South African higher education system has been compromised over time by a lack of capacity in the domain of structure and a paucity of theory used to construct its use in the ideational realm of the domain of culture.

Lack of structural capacity has been identified at a national level in the Academic Development movement and the Department of Education and at institutional levels in the availability of agents available to work with the grants. The paucity of theoretical insights relates to the way in which enhancement can be achieved as well as to ways in which students learning experiences are understood and in which academics, as agents, can work to bring about change without development at a structural level.

One of the recommendations made by the Task Team mandated to look at the TDG in 2006 (DoE, 2008) was that approximately 2.5% of the funds available for teaching development should be set aside each year to establish a national initiative, perhaps under the authority of the CHE, to advise and foster the development of teaching and learning. The analysis offered in this paper would certainly suggest that without a resource of some nature, the
capacity of the TDGs to leverage enhancement will continue to be compromised. The way in which this resource could be located and configured leaves the space for more work.

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4 References


Boughey, C (2000). Multiple metaphors in an understanding of academic literacy. *Teachers and Teaching*, vol 6, no 3 pp 279-290


898


University of Cape Town (2013). *4 Million and Rising*. Cape Town: Unilever Institute of Marketing, University of Cape Town
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University of St Andrews, Scotland

Establishing and developing a peer supporter community
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University of Edinburgh, Scotland

Active learning outside the classroom
Jan Wilmington and Nina Saunders
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Differentiation and diversity: addressing educational diversity in first year courses
Jason Bohan, Niamh Stack and Steve Draper
University of Glasgow, Scotland
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### Empowering students

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