

Enhancing practice

Research-Teaching Linkages: enhancing graduate attributes

Health and Social Care

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ISBN 978 1 84482 861 6

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Research-Teaching Linkages: enhancing graduate attributes

Health and Social Care

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Preface

The approach to quality and standards in higher education (HE) in Scotland is enhancement led and learner centred. It was developed through a partnership of the Scottish Funding Council (SFC), Universities Scotland, the National Union of Students in Scotland (NUS Scotland) and the Quality Assurance Agency for Higher Education (QAA) Scotland. The Higher Education Academy has also joined that partnership. The Enhancement Themes are a key element of a five-part framework, which has been designed to provide an integrated approach to quality assurance and enhancement. The Enhancement Themes support learners and staff at all levels in further improving higher education in Scotland; they draw on developing innovative practice within the UK and internationally. The five elements of the framework are:

- a comprehensive programme of subject-level reviews undertaken by higher education institutions (HEIs) themselves; guidance is published by the SFC (www.sfc.ac.uk)
- enhancement-led institutional review (ELIR), run by QAA Scotland (www.qaa.ac.uk/reviews/ELIR)
- improved forms of public information about quality; guidance is provided by the SFC (www.sfc.ac.uk)
- a greater voice for students in institutional quality systems, supported by a national development service - student participation in quality scotland (sparqs) (www.sparqs.org.uk)
- a national programme of Enhancement Themes aimed at developing and sharing good practice to enhance the student learning experience, facilitated by QAA Scotland (www.enhancementthemes.ac.uk).

The topics for the Enhancement Themes are identified through consultation with the sector and implemented by steering committees whose members are drawn from the sector and the student body. The steering committees have the task of establishing a programme of development activities, which draw on national and international good practice. Publications emerging from each Theme are intended to provide important reference points for HEIs in the ongoing strategic enhancement of their teaching and learning provision. Full details of each Theme, its steering committee, the range of research and development activities as well as the outcomes are published on the Enhancement Themes website (www.enhancementthemes.ac.uk).

To further support the implementation and embedding of a quality enhancement culture within the sector - including taking forward the outcomes of the Enhancement Themes - an overarching committee, the Scottish Higher Education Enhancement Committee (SHEEC), chaired by Professor Kenneth Miller, Vice-Principal, University of Strathclyde, has the important dual role of supporting the overall approach of the Enhancement Themes, including the five-year rolling plan, as well as institutional enhancement strategies and management of quality. SHEEC, working with the individual topic-based Enhancement Themes' steering committees, will continue to provide a powerful vehicle for progressing the enhancement-led approach to quality and standards in Scottish higher education.



Norman Sharp
Director, QAA Scotland

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Foreword

This Enhancement Themes project - Research-Teaching Linkages: enhancing graduate attributes - has over the last two years asked institutions, departments, faculties, disciplines, staff and students to reflect on the intended outcomes of HE, and has examined how links between research and teaching can help develop 'research-type' graduate attributes. The 'attributes' in question are the high-level generic attributes that are necessary to allow our graduates to contribute to and thrive in a super-complex and uncertain future where the ability to question, collate, present and make judgements, quite often with limited or unknown information, is increasingly important; key attributes, it is argued, that are necessary for our graduates to contribute effectively to Scotland's civic, cultural and economic future prosperity.

The Enhancement Theme adopted a broad, inclusive definition of research to embrace practice/consultancy-led research; research of local economic significance; contributions to the work of associated research institutes or other universities; and various types of practice-based and applied research including performances, creative works and industrial or professional secondments.

The Enhancement Themes comprise one sector-wide project and nine disciplinary projects: Physical sciences; Information and mathematical sciences; Arts, humanities and social sciences; Health and social care; Business and management; Life sciences; Creative and cultural practice; Medicine, dentistry and veterinary medicine; and Engineering and the built environment. The aim of the projects was to identify, share and build on good and innovative practice in utilising research-teaching linkages to enhance the achievement of graduate attributes at the subject level. The sector-wide project comprised an ongoing discussion within and between Higher Education Institutions, involving staff and students reflecting on and exploring research-teaching linkages, how they can be structured and developed to achieve 'research-type' attributes, and how students are made aware of the nature and purpose of these in order to fully articulate and understand their achievements as graduates.

Research-Teaching Linkages: enhancing graduate attributes has provided the sector with a focus for reflection on the nature and outcomes of HE - along with the opportunity to develop a rich array of resources and supportive networks to add to the student learning experience and enable our graduates to contribute effectively to Scotland's future.

Professor Andrea Nolan

Chair, Research-Teaching Linkages: enhancing graduate attributes
Vice-Principal Learning and Teaching, University of Glasgow

I Executive summary

Introduction

This project concerns the exploration of the Research-Teaching Linkages Enhancement Theme specifically related to enhancing graduate attributes in health and social care programmes. The programmes at undergraduate level range from three to four years in duration, and outcomes include the Diploma in Higher Education in Nursing, an ordinary degree and an honours degree. All are subject to validation and accreditation by external professional and registration bodies. All of these bodies have statutory curriculum requirements, which may exert constraints on the potential outcomes and attributes students develop. Additionally, and while not necessarily statutory, other external agencies influence the design and the development of the curriculum, for example the National Health Service (NHS) and the National Health Education for Scotland (NES). It is important to highlight this as the overarching regulatory framework is probably more significant than many programmes in other cognate areas. However, there may be other opportunities afforded to these programmes because of this high degree of regulation.

Methods

This project had three separate but interrelated data collection strands with an iterative process throughout. The first strand involved semi-structured interviews with programme leaders from health care programmes. The second strand involved creating and running a student blog with students from health and social care programmes. The final strand involved running two workshops with health care participants. The data from the interviews informed the questions posed in the two workshops, which were held to disseminate the provisional and tentative findings, and to identify additional comments which would complement or further illuminate findings already identified.

Conclusions and recommendations

All data from the three strands were synthesised collectively in order to provide a coherent report.

Overall there was general agreement among staff and students (herein referred to as bloggers) that the graduate attributes identified by Research-Teaching Linkages: enhancing graduate attributes were appropriate. Programme teams could identify where and how these were developed within their programmes, and most have detailed mapping documents to demonstrate this.

The eight sets of conclusions, with associated recommendations outlined below, highlight the issues from the project and are presented with different recommendations for two key stakeholders: programme teams and the higher education (HE) sector.

Description of graduate attributes

Conclusion: There was recognition from many staff for a need to have a more refined description of the graduate attributes, so that programmes could conceptualise these in similar ways. None of the bloggers commented or identified this as a problem and all seemed to comprehend the attributes as applied to them.

Recommendation for programme teams: Curriculum planning teams need to more clearly articulate and define the expected graduate attributes for students graduating from their respective programmes. This information should be made explicitly available to students in programme documentation and on appropriate programme-related websites.

Recommendations for the HE sector: The HE sector may wish to consider inter-institutional dialogue to define more specifically the graduate attributes.

Measurement of graduate attributes

Conclusion: Concern about how graduate attributes are measured was raised by staff. Staff also voiced concern about the need to ensure that, when considering an honours graduate, there is some consistency in what might be expected beyond vocational/professional knowledge and skills.

Recommendations for programme teams: Staff teams could more explicitly benchmark their expectations of graduates from their programmes with relevant documentation from both statutory and professional bodies.

Recommendation for the HE sector: The issue of how graduate attributes are measured is a concern that needs to be explored within the wider HE sector.

Research teaching

Conclusion: Research teaching was considered to be well developed by both staff and bloggers. However, concern was raised by both staff and bloggers about the change in the nature of the honours dissertation from one focusing on data collection to one that now is a literature review and proposal only. This necessary change in focus has arisen because of the research governance ethical requirement. This change was viewed negatively due to its impact on bloggers being able to fully conduct and be involved with research projects. Some programme teams have introduced small mini data collection projects to compensate for this change. Bloggers commented positively on these learning experiences. Discussions have taken place within the health care and social academic communities about the need for a student research ethics committee recognising the nature and focus of student projects, in order to deal with ethical approval in a more timely and appropriate manner.

Recommendation for programme teams: Programme teams collectively need to more actively lobby the appropriate authorities, to facilitate the setting up of research ethics committees that deal only with student projects.

Recommendation for the HE sector: The sector could support and facilitate this lobbying.

Prominence of research within the curriculum

Conclusion: Research was seen by both groups (staff and bloggers) as a separate but important part of the curriculum. Recognition was also given to the embedded nature of research, particularly around the strong emphasis that all health and social care programmes have on providing an evidence base for effective practice. All of the programme leaders discussed the development and teaching of evidence-based practice within their curricula. The bloggers, however, while acknowledging the importance of research, questioned its prominence within the curriculum where a primary focus is producing competent graduate health care professionals.

Recommendation for programme teams: Programme teams, in a dialogue with students, need to explain and provide a strong rationale for the place of research in their respective curriculum.

Teaching and learning approaches

Conclusion: All of the programmes had a strong emphasis on student-centred learning and clearly demonstrated how this developed through the curriculum. All of the staff talked about enquiry-based learning and its role in developing student independence in their learning. Many used problem-based learning as the vehicle to support this. None of the bloggers specifically talked about the nature of their student learning. Some emphasised the place that assignments played in enhancing learning. Others commented on the ability to carry out research data collection exercises as being important in their learning. However, none specifically mentioned the importance, to them, of a student-centred or enquiry-based approach.

Recommendation for programme teams: Programme teams need to more actively articulate to students their teaching and learning philosophy and how this promotes appropriate approaches to learning. This should emphasise to the students the need to be autonomous, active learners who appreciate the need for life-long learning.

Reflection as a graduate attribute

Conclusion: A majority of participants (both staff and bloggers) identified reflection as a missing attribute. Staff, in particular, were very clearly able to demonstrate the development of this attribute within their respective programmes and the bloggers were all aware of how this was being supported and encouraged. Staff teams identified an innovative range of approaches to the teaching and learning of reflection.

Recommendation for programme teams: The sharing of good practice related to how reflection is conceptualised, taught and learned within health and social care curricula should be developed as an inter-institutional activity.

Additional graduate attribute skills

Conclusion: The bloggers and participants from one workshop also identified communication skills, team-working, life-long personal development and teaching skills as additional attributes related to their professional roles.

Recommendation for programme teams: To consider if they wish to identify other relevant graduate attributes beyond those currently specified by Research-Teaching Linkages: enhancing graduate attributes that are unique to their programme or discipline.

Students' personal development

Conclusion: Bloggers were keen to emphasise that while their university programme played an essential part in the development of their graduate attributes, other factors also contributed to this. They clearly identified other associated activities: part-time working in health and social care, student union activities and voluntary activities as all contributing to their overall gradueness.

Recommendation for programme teams: To collaborate with students in the production of a reference/testimony which recognises and acknowledges the place of relevant extracurricular activities in their development as a graduate.

2 Introduction

2.1 The links between research and teaching

The Enhancement Themes are a key plank of the Higher Education Quality Enhancement Framework and aim to enhance the student learning experience in Scottish HE by identifying specific areas (themes) for development. The Themes encourage academic and support staff, as well as students, to share current good practice and collectively generate ideas and models for innovation in learning and teaching.

This project is part of Research-Teaching Linkages: enhancing graduate attributes and was commissioned by the Enhancement Theme steering committee as part of its overall exploration of this topic. Nine discipline-specific groups were identified with the aim of developing a shared understanding of high-level graduate attributes and how best to support/promote the achievement of such attributes by drawing upon research-type activities to enhance the curriculum; teaching, learning and assessment activities; and the learning environment in the disciplines. The discipline strand aimed to gather evidence of the student experience in order to provide input to the individual institutional discussion. The focus of the Enhancement Theme is on sharing and building on current and emerging practice at the discipline level. These graduate attributes are identified by the Enhancement Theme steering committee as follows:

At undergraduate level:

- critical understanding
- informed by current developments in the subject
- an awareness of the provisional nature of the knowledge, how knowledge is created, advanced and renewed, and the excitement of changing knowledge
- the ability to identify, analyse and apply problems and issues as well as to formulate, evaluate and apply evidence-based solutions and arguments
- an ability to apply a systematic and critical assessment of complex problems and issues
- an ability to deploy techniques of analysis and enquiry
- familiarity with advanced techniques and skills
- originality and creativity in formulating, evaluating and applying evidence-based solutions and arguments
- an understanding of the need for a high level of ethical, social, cultural, environmental and wider professional conduct.

This project explored Research-Teaching Linkages: enhancing graduate attributes in health and social care within a Scottish HE context.

Health and social care cognate subject areas encompass a wide range of professional groups including audiology; dietetics; nursing; occupational therapy; physiotherapy; podiatry; radiography; speech and language therapy; and social work.

The programmes from these subject areas at undergraduate level range from three to four years in duration and outcomes include the Diploma in Higher Education in Nursing, an ordinary degree and an honours degree. All are subject to validation and accreditation by external professional and registration bodies. All of these bodies have statutory curriculum requirements, which may exert constraints on the potential outcomes and attributes students develop. Additionally, and while not necessarily statutory, other external agencies influence the design and the development of the curriculum, for example the National Health Service (NHS) and the National Health Education for Scotland (NES). It is important to highlight this as the overarching regulatory framework is probably more significant than many programmes in other cognate areas. However, there may be other opportunities afforded to these programmes because of this high degree of regulation:

'As we are running a professional programme as well as an academic programme, many of these [graduate attributes] are seen as professional attributes within the dietetics profession as well as within the health profession's council.'

Most of these disciplines are recent entrants to the HE sector and, with a few limited exceptions, are relative novices in terms of research capability and capacity. This has been recognised by the Scottish Government and Scottish Funding Council, and research funding initiatives to enhance the Nursing, Midwifery and Allied Health Professions' research capability and capacity in Scotland have been provided. More rapid development is expected to occur, for example the Centre for Integrated Healthcare Research, involving collaboration between Queen Margaret University, Edinburgh, Napier University and the University of Edinburgh. The need to be producing more research outputs is already impacting on the teaching and learning of students.

2.2 Research-teaching linkages in the health and social care context

As has been stated in the previous section, discipline-based research in many of the health sciences and practice disciplines, save for a very few examples, has a limited history. In recent times, there has been a growing vocal, published and consistent call for the practice of healthcare professionals to be evidence based. In this latter sense, the conception of evidence base has, by many, been taken to mean research-based evidence; more specifically, evidence gained from research to underpin clinical practice and decision-making (Parahoo, 2006).

There is limited literature relating specifically to research-teaching linkages in health and social care. Appendix 1 includes 15 relevant publications identified by the Health and Sciences Subject Centre of the Higher Education Academy.

3 Methods

This project had three separate but inter-related data collection strands, with an iterative process throughout as follows:

- interviews with programme leaders
- student blog
- two workshops with health and social care staff.

The data from the interviews informed the questions posed in the workshops held to disseminate the provisional and tentative findings, and to identify additional comments, which would complement or further illuminate findings already identified. Ethical approval was sought and obtained from Glasgow Caledonian University, Napier University and Queen Margaret University, Edinburgh.

3.1 Interviews with programme leaders

The initial strand of the project involved interviews with programme leaders of a range of Nursing and Allied Health programmes, initially intended in four geographically spread Scottish universities that deliver the majority of such programmes in Scotland. However, because of the timeframe and attempts to gain ethical approval from all four institutions only three were utilised successfully. Unfortunately, it meant the overall population was diminished and the findings only relate to three universities.

The programmes selected were common within the four universities in order to gain a breadth of experience in research-teaching linkages. Semi-structured interviews were conducted by the two project coordinators with 12 programme leaders from a range of disciplines (see Appendix 2 for the semi-structured interview guide) within the three universities. Each interview lasted on average 45 minutes and was conducted in the work setting of the interviewee. All interviews were taped and transcribed. From this data, information related to graduate attributes and their development was elicited and drawn together in order to look at common issues and differences. Snapshots were then developed.

3.2 Blogs for students

The second stage of data collection involved obtaining students' experiences of, perceptions of and opinions on graduate attributes and how they were developed within their respective programmes. Only recently has the educational potential of web 2.0 social networking tools such as blogs been harnessed to do more than host sites for personal reflections (JISC, 2006). While the literature recently highlights more targeted uses of blogs to enhance writing skills and encourage peer support (Hall, 2007), for example, no reports are known to the authors that explore the use of blogs to facilitate focus groups. Blogs are a platform for asynchronous communication with distinct advantages and disadvantages over the more common asynchronous threaded discussion tools (Cameron and Anderson, 2006). Advantages include its support of personal style, identity and ownership. The biggest disadvantage is its clumsy message linking and lack of threading capabilities.

In order to engage students in a manner that was attractive to them and would allow views from across institutional and disciplinary perspectives, and after careful evaluation of the online options, it was agreed by the project coordinators to choose the blog over the discussion tool as its novelty and ease of access by participants seemed to outweigh the messaging inefficiencies.

A blog was set up so that students from the three institutions could contribute to the focus group discussion at any time, 24 hours a day for eight days.

Programme leaders were asked to approach their graduating year of students for two volunteers to take part in the student blog. However, this method of recruitment did not prove to be as fruitful as anticipated. Subsequently, a general email was sent out to all health care graduating students in the three institutions (see Appendix 3).

Through the deliberately tightly structured blog design, as well as visible and engaging moderation by the facilitator (a project assistant with expertise in blogging) over a period of seven days, the blog proved a worthy medium for thoughtful and rich exchanges. The daily posts and comments by the facilitator, in addition to comments by peers, prompted interaction that fulfilled the expectation for the outcome of the activity fully. The key to the success of this approach is seen to not only lie in the online expertise of the facilitator but also in the attractiveness and ease of use of the blog - as well as in the common background of the participants, who had very little time to be introduced to the technology and to one another, which hardly gave them an opportunity to gel as a group.

Originally, 11 students voiced an interest in participating of which nine actually registered with the blog provider and seven participated fully over the period of seven days. This is a positive outcome overall, considering the novelty of the tool for all and the very short time span between first email contact and day one of the blogging activity (three days). There were no technological or navigational problems reported. The participants received explicit registration instructions from the facilitator via email. Registration was a necessary hurdle in order to ensure the privacy of all, and the blog was set up to remain anonymous to web search engines.

Posts were written on a daily basis, beginning with an introduction from the facilitator before the start of the activity (Appendix 4). Day one then gave the participants the opportunity to introduce themselves. Each student was welcomed personally by the facilitator - this personal approach is seen as key to their continued engagement throughout. Subsequent posts were written to summarise the previous day's comments, highlight common themes, address/repeat unanswered questions, probe further into the topic area of interest and to motivate contributors. In addition, feedback to all comments was ongoing, which proved to draw out deeper, more critical and experiential thought. The lack of threading was overcome by embedding so-called widgets into the blog's sidebar, offering direct links to the most recent posts and comments. By day four it became evident that participants required more time for their reflections and exchanges, prompting a decision to extend the activity from five to seven days.

The blogging activity introduces the use of a web 2.0 technology to host online discussion groups. The findings reveal an effective and easy-to-use communications tool (WordPress) that sits well within the more common asynchronous discussion tool. An inviting design and clear blog structure, explicit induction, ease of access and navigation,

expert facilitation and an engaged group proved to return an outcome that went beyond the expectations of the project team.

3.3 Staff workshops

The final strand of this project was presenting preliminary data at two workshops testing out the findings from the project and allowing for any extra dimensions to be added.

The first presentation was at the Napier University Staff Conference on 15 January 2008. 12 participants took part in an hour-long workshop. The focus of the workshop, while presenting preliminary data, was on similar questions to those posed to the programme leaders in the semi-structured interviews.

The second workshop was a joint QAA Scotland and Higher Education Academy, Health Science and Practice Subject Centre Scottish Special Interest Group, on Interprofessional Education (HEA IPE SIG) held on 22 February 2008 at Napier University. The 22 people who attended this group all worked within health care programmes in Scotland and this allowed us to test out our findings on a wider and more diverse population.

4 Integrated findings and discussion

This section brings together the findings from the semi-structured interviews and two workshops with staff. The themes identified from the thematic data analysis are:

- perspectives on programme and institutional research orientation
- the nature and type of graduate attributes
- the quality and measurement of graduate attributes
- development of graduate attributes
- how teams develop their philosophy of graduate attributes in their programmes
- how programme teams communicate their vision of graduate attributes to students
- how research informs the curriculum
- the development and definition of the potentially new graduate attribute of Reflection will be explored.

Within the findings various types of snapshots are provided. These snapshots comprise boxed examples of:

- general examples of programme provision
- direct quotations used to illustrate specific examples identified by interviewees
- synthesis of module documentation given to the researchers by programme leaders or students.

Because of a wide range of examples it was decided that a variety of snapshots to highlight the diversity of practice would be more appropriately used than large, in-depth case studies.

4.1 Perspectives on programme and institutional research orientation

Using the definitions in Healey's Curriculum design and the research-teaching nexus diagram, as follows:

Research-led: where students learn about research findings, the curriculum content is dominated by faculty research interests, and information transmission is the main teaching mode.

Research-orientated: where students learn about research processes, the curriculum emphasises as much the processes by which knowledge is produced as learning knowledge that has been achieved, and faculty try to engender a research ethos through their teaching.

Research-based: where students learn as researchers, the curriculum is largely designed around enquiry-based activities, and the division of roles of teacher and student is minimised.

Research-tutored: curriculum emphasises learning focused on student writing and discussing papers or essays. (Jenkins, Healey and Zetter, 2007.)

Programme leaders were asked to identify which of the four definitions, or combination of the four, best resembled or characterised their respective programmes. These definitions provoked a good deal of discussion around the nature of leaders' respective programme characteristics. Leaders recognised that there were elements of the definitions that could be seen within their programmes, for example in the following quote:

'Research-oriented in that the students are taught the importance of research, audit, evidence-based practice, in order to inform the changes in their profession. Reflection, which is also related, then leads on to any changes through the evidence that they come up with. Research-based, we have a lot of enquiry-based activities because the nature of the basis of radiographers is that they have to problem-solve so, therefore, we do a lot of scenarios. If you were in a situation, more in the senior years and very focused clinically. Research-tutored, well we do that and especially down the senior years at the moment. For example, my guys are writing a review article based on the developments of the diagnostic imaging, development of the radiographer, and that's their final assignment as a final-year student. It allows them to go back in history and to go right up to the current day and think where they can offer, where they think the profession's going because diagnostics is a very dynamic profession, evolving constantly whether it's equipment, technology...it's great from their perspective.'

However, in the majority of cases, the research-orientated characteristic was identified as the predominant orientation of each of the programmes.

In addition to the above, programme leaders were also asked which of the four categories best described their institution. Again, there was a good deal of discussion around which of the four areas fitted best and acknowledgement that there were elements of all four. However, there was overall agreement that externally, the institution wished to be perceived as research-based.

As a result of the research governance agenda in the NHS, and due to issues surrounding the conduct of research in health and social care contexts, obtaining ethical approval is difficult and complex. This has resulted in some programmes moving away from enquiry-based data collection towards literature critique and review, and towards the development of research proposals for dissertation/projects. Programme leaders were concerned about how this move was impacting on the institutional vision of the way students engage in enquiry-based projects. The following quotation highlights many of the issues discussed:

'As an institution I don't think that we would nail our colours to any of these particular category masts (research-orientated etc), that occurs more at the programme level, certainly the institution is considered to be focused on the integration of research and teaching, but with a higher level of research and a higher research profile and would certainly be with a major strategic aim of the

institution being recognised as a research institution that engages in research. Whether it would necessarily fit in with these particular four definitions I'm not too sure because some programmes more than others integrate research in different ways, whether it's some of the pre-registration master's programmes would probably be more research based, maybe, whereas the undergraduate programmes might either [be] research-led or research-oriented or have some combination of those as you progress through the different levels.'

Some of the broader issues identified in this last quotation in relation to the differing foci of research at an institutional, school or even programme level are mirrored elsewhere in the international HE arena (Zubrick, Reid and Rossiter, 2001).

4.2 The nature and type of graduate attributes

From the analysis of the interview data and the workshops, there was generally agreement that the attributes identified by the Enhancement Theme were appropriate to the range of disciplines participating in this study. While there was general agreement about the nature and range of attributes, there were issues in relation to when and at what level these were developed within some programmes. All interviewees, while acknowledging the relevance and appropriateness of the attributes, deliberated on the degree to which each of the attributes were achieved. This was particularly evident when discussing the nursing programmes as they have two potential exit points at the end of three programmes (Dip HE/BN). However, this concern was shared more widely and staff also acknowledged that the nature and abilities of the individual student contributed to the degree of sophistication and level to which they achieved the graduate attributes, as the following quote illustrates:

'We have a variety of students who have a variety of ability and some are better able than others.... Some students go out with more ability than others to apply their skills and knowledge but that depends on the choices students take in level 4 - if they take an applied project, carry out an investigation, they are better able to apply as opposed to developing a poster or literature review.'

This suggests that while the identification of the graduate attributes is accurate, some more analysis needs to be done into the qualitative variation that might exist within the conceptions related to each attribute within disciplines. In this latter sense, this raised another issue which is the one of the definitions of the terms used to describe graduate attributes. Many programme leaders and workshop participants voiced their concern that the terms and descriptions they were being asked to consider could have a variety of meanings. They were keen to seek clarification and/or further elaboration on their definitions or their interpretation of graduate attributes in the discussions with the researchers. For example:

'The only one that kind of caused me to pause is the "familiarity with advanced techniques and skills". What does that mean exactly? Because I've seen similar phrases like that at master's level and they're kind of vague.'

'It's how you interpret or apply them.'

4.3 The quality and measurement of graduate attributes

The other issue raised was how the level of these attributes could be understood and measured within programmes. For example, the idea that some students are able to demonstrate their ability in critical understanding at a more advanced level than other students was highlighted. Also mentioned was how we identify the quantitative difference between non-graduate and graduate critical thinking and understanding. They may, for example, unintentionally link graduate attributes solely and exclusively with the study of academic skills, qualities and abilities - possibly at the expense of the necessary authentic discipline attributes for students:

'...because they have to be so generic it misses the practicalities, I don't mean the practical skills, but the notion of practising in an appropriate way, using knowledge and evidence and applying it and practising it and performing it...because a lot of it is about techniques, about mastery of enquiry and thinking skills but that kind of practicality slips out because they're so generic and we build our own ones. Ones that the fact they have to practise in a certain way it's not just about having knowledge and the ability to analyse, it's about how you're going to use that in relation to the actual practical part of the programme...you can see them doing all these things in the academic part of the programme but the graduate attributes don't actually articulate them doing things in the real world situation, the real world isn't here and it's about making them more transparent.'

4.4 How teams develop their philosophy and vision of graduate attributes within their programmes

All of the programme leaders were able to clearly identify how the notion of graduate attributes was developed by their respective programme teams. All recognised the role of statutory and regulatory bodies and their influence on their conceptions and inclusion of attributes within their programmes, as the following demonstrate:

'We've kind of always worked towards these attributes as part of how we design our programmes in the first place.... Basically, what we do is look at particularly the NMC requirements in terms of what they're looking for in terms of qualities for nursing...it starts there...and then we look at how we get the right level for the programme in terms of honours level, ordinary level, diploma level. And to do that we go to the graduate attributes in terms of what should they be doing in certain stages in terms of their thinking, their critical abilities and what we then do is design our own programme aims and programme outcomes to fit with the two master's as it were, between the NMC...but mainly the graduate attributes as our baseline for what our expectations of nurses are at the end of the programme...they're in the document.'

'What goes into our programme is in some ways heavily governed and determined by NMC.'

There was also recognition that curriculum design and development was not just the prerogative of university staff, but that other stakeholders should also have a strong voice. This was demonstrated in a variety of ways as the following snapshots indicate:

Snapshot 1: Partnership working in curriculum design and delivery (i)

One nursing programme, charged with preparing and developing nurses to work with people with a learning disability, developed a stakeholders' group comprising of people with a learning disability and their carers. In recognising the issues and difficulties which can arise in this particular group, the programme team obtained the services of an experienced speech and language therapist to ensure there was effective communication between the stakeholder group and the programme team.

The programme team developed aspects of the curriculum on which the stakeholder group was then consulted. Their views on appropriateness and relevance were fed back to the programme team, who incorporated the appropriate changes. This is an ongoing initiative intended to supply the programme team with contemporary user and carer perspectives.

Snapshot 2: Partnership working in curriculum design and delivery (ii)

An advisory group consisting of graduates from the programme - nurses with various types of expertise from a variety of backgrounds - provided expert opinion on all aspects of the curriculum, which included graduate attributes. Hence, staff other than academics contribute to the concept of graduate attributes which they consider important students develop for effective practice in their specialty.

Snapshot 3: Professional body influence on curriculum design and delivery

The College of Occupational Therapists has, like many professional bodies, a research strategy for the profession suggesting a framework with three levels of involvement in research activity:

- research consumers
- research participants
- research leaders.

This strategy informed an occupational therapy programme team's thinking and design of their programme and its outcomes.

4.5 Development of graduate attributes

Programme leaders were very clearly able to articulate how graduate attributes were developed throughout their programmes. Additionally, participants from the workshop with staff teaching Interprofessional Education (IPE) were able to identify how IPE enabled graduate attributes to be enhanced by, for example, understanding and respecting other professions, diversity of roles and valued-based health and social care.

There was agreement that the development of graduate attributes was incremental and sequential. Many of the programme leaders described how they had carried out mapping exercises with graduate attributes, programme aims and module descriptors, and how and when they were positioned in the curriculum. The following snapshots taken from programme leader interviews best describe how this happened in their own words:

Snapshot 4: Sequential nature of the development of graduate attributes (i)

'...the research modules is one of the ways you see that it runs through the programme in terms of from level 1, developing skills in reading research papers, through to level 2, looking more at the design of research proposals, in level 3 we get them to focus explicitly on methodological issues underpinning research, which tackles some of the deeper philosophical differences between different approaches, and in level 4 when they produce either a systematic review or a literature review and a proposal. We don't actually do any data collection.'

Snapshot 5: Sequential nature of the development of graduate attributes (ii)

'If you take graduate attribute number 5 [An ability to apply a systematic and critical assessment of complex problems and issues] all aspects of our teaching is problem-based learning through case scenario work. Real-case scenarios from practice so that the students get information about this man in this bed, this is what his results say, what do you need to know to offer him the care he needs and they then analyse that, work out what they need to know. To find out about it they need to go away to get information, come back, discuss it together, work out where they need to go next. That's third-year problem-based learning, but we also build it in right from year 1, when we have a module in year 1 called evidence for practice, it's only a single-module level 1, but it's all about the nature of evidence and what is evidence, what is knowledge, how do you go about finding that, where do you get it from, what's more valid than others, what are the best ways of getting that knowledge and how do you then take that knowledge and apply it? So it's all about those skills that we start from first year, not saying you're going to do critically enquiry because that's what we're building up to, but it's about how you evaluate knowledge and how do you [evaluate] information and how do you evaluate things you're reading.... They look at different forms of evidence, newspaper articles, and articles from the *Nursing Times*, *Nursing Standard*, *Journal of Advanced Nursing*. We take a whole range of evidence expert statements that type of thing and say, "ok this is all different forms of evidence to support enquiry, to support practice so say we're using evidence-based practice, how do we then differentiate between valid or less valid evidence". They do a lot of group work like discussing an anecdotal report etc and they talk about the different sorts of evidence within that and whether parts are less or more trustworthy. The assessment for that is they're given three different pieces of work and they're asked to critique those types of evidence and do a more in-depth critique of a research article. Moving from that to year two enquiry-based learning, where again we use more complex case-based scenarios, through to year three four for honours dissertation about critically analysing literature, so it's developmental through the four years.... They need that to become critical thinkers...to become cutting-edge practitioners...having a breadth of ability to make informed judgements...it's about how we use evidence to support our teaching reflects what we're hoping they'll become as well...this is what we're doing to teach you....'

Programme leaders emphasised the role of the teaching and learning philosophy and approaches their programme developed. All agreed that they wished to develop a strong student-centred approach to learning in which students moved from being dependent learners to independent practitioners. The vehicle for achieving this was by adopting an enquiry-based approach to teaching and learning which the following demonstrate:

Snapshot 6: Role of teaching and learning (i)

'What goes into our programme is in some ways heavily governed and determined by NMC. Students are encouraged to be independent learners and we use PBL [problem-based learning]...PBL felt to be the whole philosophy of the programme and this is reinforced by clinical colleagues in practice who can tell the difference between students learning via PBL from others because they ask questions.'

Snapshot 7: Role of teaching and learning (ii)

'Students produce an educational poster for patients based on an integration of modules and build on this in levels three and four with students dealing with more complex problems and situations...problem-based learning...our role is as facilitator to help develop them as independent learners...they're going to come across people with dietetic problems in practice...they have to problem-solve almost immediately with every patient they meet that they will have to work through and will require them to integrate all of their knowledge to solve issues in practice....'

4.6 Communication of graduate attributes to students

The question of how graduate attributes were communicated to students posed some difficulty for the programme leaders. All acknowledged that graduate attributes were conveyed within the programme and module handbooks.

Programme leaders were able to point out within their documentation and curriculum how and where this was developed and articulated. All mentioned programme documentation, but also acknowledged that many students do not read this in ways that would help them understand the graduate attributes and how they are intended by programme teams to be developed. One programme leader indicated this process was 'easy to write, more difficult to operationalise'. Many of them raised the personal development portfolio as an example of how material was brought together by students in a coherent and meaningful way. Portfolio development has been a part of health and social care programmes for a considerable period. This is in preparation for when they are registered practitioners and will, as a statutory requirement, need to keep portfolios to record continuous professional development.

Programme leaders gave examples of how the structure and content of their programmes contributed to teaching and learning and how that then fed into the development of graduate attributes. Many programmes are now required to map their curriculum against a range of benchmarks from a variety of sources and to be able to demonstrate how graduate attributes are developed and linked throughout the programme.

The attributes appear to be communicated in two different ways. One way is by specifically addressing attributes within a relevant taught module. The other way is at a programme management level, where staff are appointed as year leaders and time is spent in an induction week, as well as throughout the year, reinforcing the challenges and demands of the programme for various years. The following snapshots are examples of how graduate attributes were communicated to students:

Snapshot 8: Communicating graduate attributes to students generally (i)

Some programmes had induction sessions at the beginning of each year where the demands and focus of the forthcoming year were discussed with students. In recognition of the changing demands additional and relevant support was offered during this induction period, such as updates of library support systems.

Snapshot 9: Communicating graduate attributes to students generally (ii)

'We tell them...that's one of the things we do when we start out. We say these are the things we think you need to be able to do before you finish in four years. Obviously it's difficult in the first year for them because they don't necessarily see it and then we talk our way through it. How we go about pitching it, like level one, how we're going to start off, what would help them achieve that in four years...we give them a programme overview and then say, "here's what we want by the end of first year, here's what we expect you to know by the end of the first year and these are the level one outcomes", so it's mapped...'

Snapshot 10: Communicating graduate attributes to students generally (iii)

Students have a level handbook - module introductions, level aims and what is being expected of them at every level.

'They would know...within the Professional Studies module we do a critical appraisal of the literature and a journal club with them, so they see that feeding into certain aspects of the graduate attributes. We do things like in the Key Investigative Skills module early on finding out about epidemiological study versus a randomised controlled trial, statistics and significant results through to year 3 this is the literature but this was actually a small study it's not contributed to the evidence base and we talk about guidelines and systematic reviews etc and within level 4 they do an honours project they choose their own research topic, with some guidance, you know what's practical and that sort of thing, they also have to do a research process module and write a research protocol. After that they will do a research communications module where they are expected to write an abstract and present their honours project. So it's the cycle of idea inception to publication which we're replicating.

Snapshot 11: Communicating graduate attributes to students specifically (i)

Two programmes described how looking specifically at graduate attributes were considered within a fourth year module. Students using a variety of documentation relating to graduate attributes were asked to identify their skills and where they obtained these. This overt discussion on graduate attributes has emerged because of the need of some professions to look beyond their professional skills to enhance graduate employment.

Snapshot 12: Communicating graduate attributes to students specifically (ii)

One module in a nursing programme looked at anti-discrimination, advocacy and empowerment. The module outcomes were:

- discuss the promotion of mental health through self empowerment
- analyse the role of the advocate in mental health care provision
- discuss the use and abuse of power by professionals in mental health care
- discuss factors influencing the formation and maintenance of discriminatory attitudes and behaviour
- demonstrate how relevant legislation and employment practices can help to secure human rights and challenge discrimination
- work effectively as a group member.

In this module, students looked at discrimination and the experiences of people who are socially excluded or who have disabilities, particularly people with mental health problems. The approach is firmly rooted in a civil rights model and they examined ways in which negative attitudes and damaging behaviour can be challenged, so that people with disabilities are valued in society while ensuring that their needs are met. To help students with this, the module looked at the way prejudiced attitudes and beliefs and stereotypes developed and how they could give rise to harmful discriminatory practice.

Students also examined how professionals, particularly nurses, can safeguard the rights of people with disabilities as well as different sorts of advocacy for mental health service users, and some of the issues arising from these, and how advocacy can enable service users' views to be heard. Further exploration included the ways in which the media could promote positive images of people who frequently experience discrimination, particularly people with mental health problems.

Students experienced self-empowerment by taking control of their own learning and assessment. Students were allocated to a project group at the beginning of term for the purpose of preparing assessment work. The assessment for this module was based on the presentation of a group project to a selection of their peers in the class, and assessment was by peer assessment and by self assessment, with only a small component of teacher-marked assessment. As part of their group project work they were required to use WebCT to enhance the effectiveness of their group working skills.

4.7 Research teaching and the curriculum

All programmes had research modules with different content and different teaching and learning approaches. All were clearly able to identify the actual research teaching students were exposed to. This varied in nature, with some programmes having named research modules throughout each year of the programme. Others had named research modules in the later years of the programme. However, what all were keen to emphasise was that research evidence was strongly used to underpin any teaching, and that evidence-based practice was a core feature of the curriculum. Another area programmes leaders were keen to discuss involved programmes containing an honours year. The discussion focused on the challenges the changes in research governance have created

in relation to the nature of research dissertations. Having to obtain ethical approval from NHS medical ethics committees makes external data collection for fourth-year dissertations almost impossible within the timeframe. Some programmes still retain the data collection type dissertations but the data is collected from fellow students. Many have moved to an extended literature review with research proposals which, while still reinforcing research skills, change the nature and outcome of the research experience.

All programme leaders indicated that enquiry-based learning was important within their programme and all were able to cite specific curriculum examples of how students were encouraged to take responsibility for their learning. Many cited how important they perceived support services to be and how they utilised them, for example library and computing services to augment enquiry-based learning and evidence-based practice. There were two areas programme leaders seemed to agree on as being important in the development and enhancement of graduate attributes. Firstly, encouraging students to develop their own learning strategies and providing the support and infrastructure to do this. Secondly, ensuring students realised the nature of how evidence is used to support teaching and learning, both in academic and practice settings. The following snapshot brings together examples of the ways in which research skills are fostered within different health and social care programmes:

Snapshot 13: Examples of research skills development within programmes

'Research Skills 3, where they need to address a methodological issue...what we were finding when we used to have students undertake a piece of data collection is that they would tend to be method led, and say, "well I don't understand statistics therefore I'll do a qualitative proposal without really understanding qualitative research". So by requiring them to do in level 3 an essay they have self-selected and that touches on a number of these criteria. In terms of first of all, what is a methodological issue and addressing that issue; the weaker students probably go for a simple straight forward, "which is more relevant to OT [occupational therapy] quantitative or qualitative methodologies?" because you can actually deal with that fairly straight forwardly, the more able students would set themselves more difficult tasks identifying some of the methodological issues around participatory action research, or ethical difficulties presented by qualitative research in people with learning disabilities or the advantages and disadvantages of a randomised control trial (RCT) in OT, because there is this debate that goes on in the profession related to that - there is a camp who say we should be doing more RCTs and there's the camp who say, "well that doesn't fit with our philosophy and values" and you get tied back into that whole issue. So again, by addressing that when it comes to level 4, with the literature review or systematic review and proposal, they need a substantial justification for the design and if they're sensible, we tell them, "this is level 3 you can use this through to level 4 and that forms the basis"....'

'Year 2 research module dealing with basics and terminology - with an annotated bibliography (not done by diploma students) and in year 3 another research module appraising evidence (research methods in much more detail) they do group presentations as well as an exam. Presentations, each member selects and critiques a research article and presents their critique to the group, for example health promotion and smoking, research question, and has it been answered etc (six students in each group) peer assessment as well as facilitator assessment (assessment of presentation skills

as well). They need to do this before they look at the next year 3 research module where they look at evidence in practice in order to determine if this [is] evidence-based practice or not, as well as clinical reasoning. Reflection carried out as well. By the end of year 3, they will have some idea of what research is about but not researchers and a dissertation in year 4 (literature review - proposal is not done due to time and ethics). Students choose topic. Started off with 44 students at the beginning of year 4.'

'The overview of research starts in level 1 in interprofessional learning, "why do you need research, why do you demonstrate evidence-based practice?". Level 2 there's a module on research methods that starts the research process off in a simple way. "How do you gather information? What are the methods? What's sampling?" Then in level 3, it's more statistical, inferential statistics, higher order, statistical analysis. At this moment in level 4, they all do a data collection exercise linked to their dissertation, so they're not doing literature reviews, we actually get them to come up with an area of research and to gather their own data (design and data collection). Data protection has caused us big problems and what we're finding is that, and we're trying to think laterally, the students are getting questionnaire fatigue because they're all using each other in order to do that. What I've been trying to do is to think differently, for example imaging...two students have published.'

4.8 Reflection

Many programme leaders, when asked if there were other graduate attributes missing, which they thought their programme engendered, raised the concept of reflection. There were two different views on reflection and its position as a potential graduate attribute. A small number felt:

'It's certainly a major part of our programmes. I don't think you could have these attributes if you didn't have reflection as an integral part of them. There's value in flagging it up but they should be reflective and reflexive.'

The majority, however, felt that reflection was a distinct and key attribute:

'We're heavy on reflection...the way the curriculum is we get them to reflect from level 1 up to level 4 in different ways.'

Programme leaders described a wide variety of ways in which reflection is taught and learned. The project interviewers found all of these to be interesting and informative. In order to capture this innovative and diverse practice all examples have been used to illustrate how reflection can be incorporated within the curriculum.

Snapshot 14: Reflection (i)

During clinical practice placements students return to university one day a week. The day is structured with a half day devoted to information giving and the other half to reflection. The reflective activity is linked to situations arising during the clinical practice and this is further developed in year 3 when students take on the role of reflective group facilitator.

Snapshot 15: Reflection (ii)

Year 1: students are exposed to simple reflection models and encouraged to utilise this.

Year 2: more detailed knowledge about reflection is provided and students are expected to use more sophisticated reflective techniques.

Year 3: students lead reflective sessions and write up a reflective account as part of their assessment.

Snapshot 16: Reflection (iii)

Students bring practice experiences in the shape of critical incidents to a reflective group held fortnightly when students are on placement. The staff-facilitated sessions allow students to present at least two critical incidents and learn from other students' experiences.

Snapshot 17: Reflection (iv)

One programme has a midway break within modules to allow students to consider what they have learnt and reflect on it if it fits with other aspects of their programme, including practice.

Snapshot 18: Reflection (v)

Students are exposed to the concept of reflection within an Interprofessional Education module in the first year. The basis elements of reflection are taught and models of reflection are introduced. As part of the module, assessment students have to produce a reflective essay looking at their contribution to the group task, which forms the other element of the assessment.

Snapshot 19: Reflection (vi)

Several programmes have (a) specific module(s) with reflection as the core element. These tend to build on introductory aspects of reflection and are a core element in the third or fourth year, with the expectation students will develop and demonstrate a sophisticated understanding and application of reflection and reflexivity as tools for effective practice, which is based on a range of evidence. An example of one such module has the following aims and outcomes:

Module aims

You will demonstrate the ability to:

- apply a theoretical model of reflection to a self-selected aspect of nursing practice
- access, and critically evaluate, relevant literature in the compilation of a client-centred reflective assignment.

Module learning outcomes

Your assignment will:

- identify one aspect of nursing practice for detailed analysis and evaluation
- using appropriate search tools, describe and evaluate the evidence base relevant to the identified aspect of nursing practice

- compile a client-centred assignment, using the above
- demonstrate application of a theoretical model of reflection throughout the assignment
- identify new learning and the implications of this for future practice.

Snapshot 20: Reflection (vii)

Many programmes used portfolios as a means of demonstrating reflection integration of theory and practice. The nature of the portfolios varied, some used profession-designed ones, others were more general. Many are moving to an e-portfolio medium consistent with Scottish Government Policy. These portfolios are instrumental in helping students demonstrate their skills and attributes to potential employers.

Snapshot 21: Reflection (viii)

'We're heavy on reflection...the way the curriculum is we get them to reflect from level 1 up to level 4 in different ways. In level 1 reflection's introduced to them but quite often they don't see the relevance of that until they go to clinical practice, so what we do in clinical practice is, on a weekly basis, reflect on their week and what it's based on, for example Gibb's reflective model - what did you do last week, what did you learn, if you were to change it and what do you now feel you can do. It's a back-to-back page thing. It also allows them to write down what they've done that week in relation to the skills that they're using, like basic skills - have they done a chest X-ray, have they done a hand, and they can think about "well I want to, what are you going to do for next week, want to revise my anatomy and go into such and such a room". So that's the start of it. Level 2 we do a similar thing but expect it to be more reflective, for example, "why was this good?" just a bit more higher order. By level 3 they start to write reflective essays. They have the building blocks of level 1 and level 2, they've kept these weeks in their diaries, by level 3 we get them to specifically reflect on their experience. For example, in level 3 they go to specialist placements, for example paediatrics, neuro etc but they also have the run-of-the mill in A&E in the General. We get them to look at the differences between the two and ask them to think about what they've seen, how did they reflect upon it. They've also got two reflective essays to do in level 4. The students find that tough to do because they quite often can't, they're struggling with this, but you do reflect, but you need to formalise it to see your skills of reflection supported by literature and references. That's working, they seem to be OK. One summative reflective essay in the third year and two summative essays in the fourth year mixed in with other sorts of assessments.'

What is apparent from the wealth of information produced is that there are a variety of teaching and learning approaches to facilitate the development of student reflection. Many examples of good practice were demonstrated and the health care sector within HE in Scotland would benefit from an exchange of this good practice.

5 Student blog findings

Initially, 11 students volunteered to participate but only seven students actually participated in the blog. However, this represented students from three institutions and from four professional disciplines (nursing, physiotherapy, occupational therapy and social work).

Over the seven days the blog was open, a total of 60 postings were made (13,171 words).

The first day started with a very helpful opportunity for students and facilitator to become better acquainted via the 'getting to know you' activity.

5.1 Student perceptions of the attributes developed at university

The second day saw the start of the discussion proper. At this time, students were asked to reflect on the knowledge, skills and attributes they considered they had gained during the programme of their studies. They were also asked to post their ideas of the key attributes they would identify if they were shortlisted for a job interview.

From the students' perspectives, their responses highlighted communication skills (both oral and written), working more effectively and team-working skills as the kinds of attributes they considered to be key. Students (herein referred to as bloggers) were clearly able to articulate the attributes. However, many of them also acknowledged the other activities they were involved in contributing to these attributes. For example, part-time employment within the health care sector, voluntary work during the summer, student union activity and other continuing professional development opportunities offered:

'...run health promotion campaigns for my students union as a member of the Student Executive, worked many holidays in a children-with-disabilities play scheme...'

The following postings best illustrate the bloggers' responses (for the purposes of this report the excerpts used have been changed to eliminate some aspects of text language for clarity):

'Key attributes I think would help me to stand out would be:

- my ability to communicate clearly
- my experience working as a part-time carer during the programme and the invaluable knowledge I would bring to the potential job
- my ability to work effectively with different people. Also my flexibility to adapt to different situations.'

'There are things I have learned but I would not necessarily tell a potential employer but they are still important. Skills and knowledge gained at my time on the programme:

- a better understanding of the role of all health professionals
- the importance of occupational therapy
- how wide occupational therapy is and its interaction with other professions
- to see the world differently (sounds silly but I do, I look at access to buildings and things I never noticed before)
- skills in goal setting and observation
- communication skills.

'There are also skills I have but need to develop further these are:

- reflection
- being more productive with my time.'

'Hi, the skills I would mention would include communication (verbal, written and body language), other skills would be mentioned such as adaptability, flexibility, time management, team work and working with others. Knowledge would include social work skills, life span development, social policy and legislation. Attributes such as time keeping, endeavour, honesty, reliability and perseverance would also be important. I would draw potential employers to my ability to learn, adapt and bring experience to the work place.

Key attributes would include a persevering, hard-working, honest employee who has demonstrated an ability to adapt, learn and transfer knowledge and skills from previous experience, and learning environments, to be used in new areas.'

'I think, even though I'm a physio, I can identify with a lot of the skills that the others are talking about: verbal and written communication skills; skills to participate and work in a team; an ability to approach a patient holistically. It makes me wonder how unique we really are as professionals.

'Also perhaps it's just [university name removed for anonymity] that is really hardcore about this, I look at everything - every suggestion of a treatment or management approach - with a relentlessly critical eye. I think uni has really trained me well to join in with the NHS's clinical effectiveness agenda.'

'I think fourth year has definitely helped me mature professionally, this time last year I was looking forward to finishing and working but didn't feel ready, this year I'm looking forward to it and feel ready.

'I feel I have gained some invaluable attributes throughout university both academically and non-academically. I have gained skills in looking at a person's whole picture, not just the reason why the person has come in contact with the services, communicating with patients and their family, colleagues and medical consultants!

'My confidence in communicating has improved, I used to be terrified of organising care packages over the phone, I always felt I was holding the other person up and taking too long, but I have learned to know exactly what I'm going to say and possibly have it written down, this is also touching on organisation skills as well.'

5.2 Reflection as an attribute

The facilitator noticed within the postings that the bloggers kept referring to reflection as an attribute. She commented on this and the bloggers all acknowledged reflection as an important part of their learning process. The following postings specifically and clearly illustrate this and highlight some of the ways and contexts in which students have developed their reflective skills:

'Yeah, reflection is something which has been used a lot throughout all placements and has quite a focus on everything we do. We have all kept reflection log books, which was suggested by uni, we could have shared these logs with supervisors if we wanted to, but we didn't have to.'

'However my thoughts about studies and people interaction have stemmed from lecturers and supervisors, my own consolidation of the OT process and also observations of other members of the team interacting with patients. So, to answer your question, yes, reflection has been used but I don't think it's all been down to it, I think all of the above have contributed to my thoughts.'

'In essence, social work training at the beginning has caused me to look inwards and reflectively at my self and life to date. The knowledge I have gained enables me to reflect and perhaps understand why, how, and the consequences of past events. For instance, life span development has enabled me to recognise and account for various age and stages that I see people at, even my own family members....'

'This was an area that I became aware of my learning through a formal reflection process. During our clinical placements in the third year we were required to keep a reflective diary and then create a portfolio to 'evidence' our learning in I think five different features of clinical practice. To be honest it was a pain in the bum but now it's proved useful!'

'Reflection in my opinion is a skill that has been enhanced at university. Again looking back, I never knew what reflection was in my previous employment, but now recognise that I was actually doing it to improve performance and productivity of both machines and people. For example, I was using reflection to improve my people skills and thus knew how to get the best out of people or make sure that they met my demands first and therefore increase my performance.'

'Reflection has been encouraged and prompted throughout the programme and I have kept diaries and journals for reflective thoughts. I have found the process very rewarding but do agree it can become very time consuming. However, when things sometimes go astray it can be useful as a memory aid and prompt to track back the root cause of negative or positive experiences.'

'I think I do take more time to reflect on situations sometimes at the time and sometimes at a later date. In fact, sometimes I find it better to review my first initial reflection and then spend some time reflecting further. I find reflection after some distance and time away from issues encourages different perspectives.'

5.3 Bloggers' perception of research and research activities

During the blog, the bloggers were asked whether or not they were actively involved in research or research-related activities. Some bloggers were able to identify being actively involved in research activities, where others commented on the fact that there were barriers to them being able to participate fully in the research process. However, they were still able to identify the skills and attributes that involvement in research had given them. While the bloggers acknowledged the importance of research, several of them questioned its prominence in relation to being a competent and effective clinician. This ambivalence is contained in the following postings:

'I think my uni has a very strong focus on research. In our first two years we had modules where we had to design and carry out little research projects. We did mini lit reviews from papers that our supervisors recommended, recruited our classmates as subjects, and spent many miserable hours battling with SPSS for our statistics.'

'This year, our honours project is also very research focused. We are to carry out a full lit review and create a formal research proposal as if for a funding body. It's been a real eye opener, and has definitely taught me a lot of new skills. But I do wonder: how much is this contributing to making me a good clinician? I know that an understanding of these processes is important, but this honours project contributes something like 60 per cent to my final degree grade - is that really an appropriate proportion?'

'Our honours also hangs on our research module. For one of our modules this year we had to complete actual data collection and present on a poster.'

'Although I am a self confessed **non**-academic and I do not particularly enjoy reading text books and all things academic, I did enjoy gathering the data for my poster, it was an audit of a treatment package I designed last year and because I did it, it interested me and the results interested me, some were good, some were not so good, but on a whole I enjoyed it.'

'I think doing research is a good way of keeping yourself up to date with new innovations of practice because your prior reading can bring up so much.'

'Goodness me I'm almost starting to sound like an academic, don't tell anyone!! (he he).'

'We were never offered the full research, it's an honours project in our final year, to avoid the difficulty that surrounds the ethics issues. However, I feel that the research module was of benefit to me. I am less cynical of research, I am critical from an academic perspective. I can find research supportive of my arguments, but also against if need be. I have learned skills, for example where to find the data, how to critically review it. The most interesting thing that I found out was the participant (service user) involvement in research, as active researchers in their own issues and agenda. Although small scale, they offer a zoomed-in snapshot of particular issues for the participants, it's their agenda and their outcome, possibly giving clearer results.'

'I think that I've found research to be the core component of our degree programme; in fact my class have often commented that we're trained to be great researchers but didn't have a clue about being physios when we were sent out on our first placement in the third year. But it's a good grounding, it's in keeping with health care policy and I think being confident with research - knowing how it works and what to do with it - makes you more autonomous and less likely to end up a clone of your clinical supervisors. It's also definitely improved my practice in specific ways: I've been more aware of the importance of using outcome measures, for example.'

'I think I talked a little about clinical effectiveness on Tuesday's post. When I came into the programme I thought it would teach me what to do to treat things, but it's really just taught me how to decide what to do to treat things! I've learnt how to analyse problems, looking at the whole picture. And like I said, I scrutinise everything for an evidence base!'

'Research at [university name removed] plays an important role in the occupational therapy programme, the research is the evidenced base for our role as an Allied Health professional. As practitioners we are to look to research to guide us forward. I agree with this practice however the basics of our role must be taught/learned/established before we can understand what the research is telling us. As in you have to walk before you run concept.'

'With this said, reading previous research is like reading through history books - forms a picture of how today's practice evolved. I look to the research for understanding but I do not want to forget the patient is a living breathing person.'

5.4 Theme identified attributes: bloggers' views

Bloggers were presented with the graduate attributes identified by the Enhancement Theme steering committee and asked if they could identify with them and to provide examples of how they were developed. They were also asked if there were any attributes they considered were missing from the list.

All bloggers who responded to this posting agreed that they could identify with most of the points on the list. However, one student commented on the lack of acknowledgement of an educational attribute linked to their ability to act as an educator in their professional role.

'I can identify with most of the points on the list, and can think of elements of my programme that have been designed to address each of them.'

'I'm not overly confident of my familiarity with "advanced techniques and skills". I'd say that my practical physio skills are pretty basic, and that it will really be experience in clinical practice that will help me to advance them.'

'The list doesn't refer to educating skills. I see a large part of the physio's role as being an educator, and facilitating the decision-making of our patients. I think this is an important "graduate attribute" that I have developed in my time at uni.'

'Hi there, reviewing the list I would say that I would agree that I can identify with most of them as well. Critical understanding, for example, I can now draw on knowledge gained at placement and uni to critically understand things that might be happening around me or for service users.'

'Hey! I would agree with what [student name removed to preserve anonymity] and [student name removed] have both said. With regard to the points, I feel fairly confident with most of the points and feel they have all developed and I have improved on them throughout my four years. I think that all the points cannot be placed into academic or placement boxes because I think it all has an impact upon your own performance and, as stated many times throughout this exercise, influences do not just come from university but the many different things each person is involved with and the people they speak to.'

'I do feel that the point "informed by current developments in the subject" has been helped through assignments.'

The following quote highlights that bloggers clearly recognise the graduate attributes that their respective programmes help to develop and foster, but equally questions the idea of students needing to always identify where and when these attributes emerged:

'Clearly, like all students, I arrived at university with a range of skills, values, knowledge and life experience. University and placements have broadened these areas as well as adding to them while at the same time adding new ones. Sometimes it is difficult to track back and discover when or where knowledge/skills were learned. But on other occasions it's crystal clear that I learned about Brocia for instance at psychology lectures. Consequently, I wonder if it is important to know where we learn things or is just important to know what we do and do not know.'

In conclusion, feedback from the bloggers suggested that:

'In closing, I would like to say that I have enjoyed this experience, took something from it and hope that it proves fruitful for others.'

'I would just like to agree with [blogger above], I have enjoyed this experience too, it has been really interesting to read what everyone has had to say and how we can all relate to the same experiences.'

However, from the researchers' perspective there is one issue which perhaps could have been explored in more depth. The issue is to do with how the bloggers saw their skills and attributes being developed over the duration of their respective programmes. Some of them touched on this but it could have been explored more fully.

6 Conclusions and recommendations

There was general agreement among staff and students (bloggers) that the graduate attributes identified by the Research-Teaching Linkages Enhancement Theme steering committee were appropriate. Programme teams could identify where and how these were developed within their programmes and most have detailed mapping documents to demonstrate this. The following eight conclusions highlight the main areas of discussion.

6.1 Description of graduate attributes

Conclusion: There was recognition from many staff that there was a need to have a more refined description of the graduate attributes, so that programmes could conceptualise these in similar ways. None of the bloggers commented or identified this as a problem and all seemed to comprehend the attributes as applied to them.

Recommendation for programme teams: Curriculum planning teams need to more clearly articulate and define the expected graduate attributes for a student graduating from their respective programmes. This information should be made explicitly available to students in programme documentation and on appropriate programme-related websites.

Recommendations for higher education sector: The higher education sector may wish to consider inter-institutional dialogue to define more specifically the graduate attributes.

6.2 Measurement of graduate attributes

Conclusion: Concern about how graduate attributes are measured was raised by staff. Staff also voiced concern about the need to ensure that, when considering an honours graduate, there is some consistency in what might be expected beyond vocational/professional knowledge and skills.

Recommendations for programme teams: Staff teams could more explicitly benchmark their expectations of graduates from their programmes with relevant documentation from both statutory and professional bodies.

Recommendation for higher education sector: The issue of how graduate attributes are measured is a concern which needs to be explored within the wider higher education sector.

6.3 Research teaching

Conclusion: Research teaching was considered to be well developed by both staff and bloggers. However, concern was raised by both staff and bloggers about the change in the nature of the honours dissertation from one focusing on data collection to one which now is a literature review and proposal only. This necessary change in focus has arisen because of the research governance ethical requirement. This change was viewed

negatively due to its impact on bloggers being able to fully conduct and be involved with research projects. Some programme teams have introduced small mini data collection projects to compensate for this change. Bloggers commented positively on these learning experiences. Discussions have taken place within the health care and social academic communities about the need for a student research ethics committee which recognises the nature and focus of student projects in order to deal with ethical approval in a more timely and appropriate manner.

Recommendation for programme teams: Programme teams collectively need to lobby appropriate authorities more actively in order to facilitate the setting up of research ethics committees that only deal with student projects.

Recommendation for HE sector: The sector could support and facilitate this lobbying.

6.4 Prominence of research within the curriculum

Conclusion: Research was seen by both groups (staff and students) as a separate but important part of the curriculum. Recognition was also given to the embedded nature of research, particularly around the strong emphasis that all health and social care programmes have on providing an evidence base for effective practice. All of the programme leaders discussed the development and teaching of evidence-based practice within their curricula.

The bloggers, however, while acknowledging the importance of research, questioned its prominence within the curriculum where a primary focus is producing competent graduate healthcare professionals.

Recommendation for programme teams: Programme teams, in a dialogue with students, need to explain and provide a strong rationale for the place of research in their respective curriculum.

6.5 Teaching and learning approaches

Conclusion: All of the programmes had a strong emphasis on student-centred learning and clearly demonstrated how this developed through the curriculum. All of the staff talked about enquiry-based learning and its role in developing student independence in their learning. Many used problem-based learning as the vehicle to support this. None of the bloggers specifically talked about the nature of their student learning. Some emphasised the place that assignments played in enhancing learning. Others commented on the ability to carry out research data collection exercises as being important in their learning. However, none specifically mentioned the importance, to them, of a student-centred or enquiry-based approach.

Recommendation for programme teams: Programme teams need to more actively articulate to students their teaching and learning philosophy and how this promotes appropriate approaches to learning. This should emphasise to the students the need to be autonomous, active learners who appreciate the need for life-long learning.

6.6 Reflection as a graduate attribute

Conclusion: A majority of participants (both staff and bloggers) identified reflection as a missing attribute. Staff, in particular, were very clearly able to demonstrate the development of this attribute within their respective programmes and the bloggers were all aware of how this was being supported and encouraged. Staff teams identified an innovative range of approaches to the teaching and learning of reflection.

Recommendation for programme teams: The sharing of good practice related to how reflection is conceptualised, taught and learned within health and social care curricula and how it should be developed as an inter-institutional activity.

6.7 Additional graduate attributes

Conclusion: The bloggers and participants from one workshop also identified communication skills, teamworking, life-long personal development and teaching skills as additional attributes relating to their professional roles.

Recommendation for programme teams: To consider if they wish to identify other relevant graduate attributes beyond those currently identified by the Research-Teaching Linkages: enhancing graduate attributes, which are unique to their programme or discipline.

6.8 Students' personal development

Conclusion: Bloggers were keen to emphasise that while their university programme played an essential part in the development of their graduate attributes, other factors also contributed to this. They clearly identified other associated activities, such as part-time working in health and social care, student union activities and voluntary activities, as all contributing to their overall 'graduateness'.

Recommendation for programme teams: To collaborate with students in the production of a reference/testimony recognising and acknowledging the place of relevant extra-curricular activities in their development as graduates.

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8 Appendices

8.1 Appendix 1: Bibliography

The references below were provided by the Health Sciences and Practice Subject Centre in support of this project and are drawn mostly from nursing journals. They serve as an introduction to linking teaching and research in the health sciences and practice disciplines.

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8.2 Appendix 2: Research-Teaching Linkages Project

Research-teaching linkages in health and social care

Introduction

Two weeks prior to each interview, participants will be sent copies of the definitions of 'research-tutored', 'research-informed', 'research-led', 'research-oriented' or 'research-based' and the QAA list of graduate attributes relevant to their programme. They will be asked to read and consider these before the interview as these two aspects will be then focused on during the interview. The purpose of providing these prior to the interview is to allow participants opportunities to reflect on these issues before the interview takes place. We will also be providing participants a copy of the semi-structured interview schedule at the same time.

Semi-structured interview schedule (staff)

Institutional context:

- 1 Can you give us a brief outline of your programme(s)?
- 2 Based on the definitions - research-informed, research-tutored, research-led, research-oriented or research-based - provided before the interview, how would you define your institution's perspective on research?
- 3 In considering QAA graduate criteria, did you agree with them as they may relate to your programme?
- 4 Are there any other criteria/attributes you would wish to add, based on your programme?
- 5 How, as a programme team, have you agreed on this set of criteria?

Prompt - ask about influence of professional bodies, registration bodies, SCQF framework etc if not mentioned.

- 6 Based on this list of criteria, how is this translated into your curriculum philosophy?
- 7 How is this philosophy conveyed to students?
- 8 How does this set of criteria manifest itself in your curriculum design?
- 9 How is this conveyed to students?
- 10 Can you give examples of where this set of criteria is translated into your curriculum, for example modules, assessment, teaching and learning events/activities?

Prompt - can you give some examples that best illustrate this?

- 11 How have you as a programme team developed a learning environment for research activities for students? Can you give me some examples of good practice?

Prompt - ask about engaging students in collaborative team-based inquiries; acting as research assistants etc.

- 12 Is there anything else in your programme related to research-teaching linkages we have not covered but you might want to share with us?

8.3 Appendix 3: Bloggers wanted

From: Nicol, Maggie
Sent: 11 January 2008 08:37
To: Moderator
Subject: Bloggers wanted

If you are a fourth-year undergraduate student on any health care degree and a blogger or interested in blogging, read on.

What is required of you? Participation daily for a short period in a blog of one week's duration.

Why? Quality Assurance Agency (QAA) has funded Professor Maggie Nicol (QMU) and Dr Norrie Brown (Napier University) to explore graduate attributes in health care students. We are keen to have student input to this, hence the participation in the blog, which will explore your perceptions of the graduate attributes you have gained whilst a student and how they have developed.

How will you benefit from this experience? You will gain insight into the graduate attributes you have developed, which can then be used to enhance your personal statements in job applications. You will develop your blogging experience. You will receive a participation certificate for your personal portfolio.

How to participate? Contact Maggie Nicol at mnicol@qmu.ac.uk by 21 January 2008 for further details.

Ethics: This project has ethical approval and confidentiality will be ensured for all participants.

8.4 Appendix 4: Online focus group, Napier University

QAA study and your participation in the online focus group

'Hello everyone,

My name is **Christina Mainka** and I am contacting you on behalf of Dr Norrie Brown and Professor Maggie Nicol regarding a small research project funded by the Higher Education Quality Assurance Agency (QAA) Scotland that you have kindly agreed to participate in.

If you feel you have received this email in error, please let me know and I will update my list. Otherwise, please **do read on carefully**.

This project aims to identify graduate attributes and to explore student perceptions of these. We would also like to link this experience with teaching and research links within your programme. You have been recruited from Napier University, Queen Margaret University, and Glasgow Caledonian University. The only criterion to being selected was that you are part of the student group who will graduate from your health care programme in 2007-2008.

As participants of this study, you will be a member of an online, blog-based focus group interview with your peers and a researcher. The blog site will be password protected and only the students in your focus group and the researcher (Christina Mainka - me!!) will have access to the content.

This online focus group will take place over a one-week period **beginning Monday, 28 January**. A few questions will be posted to begin the discussion, which we hope you will find a useful forum and contribute actively to it. You may participate anytime, as often and in as how many words as you like, but by dropping in online at least once per day you will keep abreast of new views and thoughts shared by others, which will best stimulate your own ideas and comments to the central theme.

I will be with you online throughout and we will begin with a fun introductory activity available to you from tomorrow (24 January) to Monday (28 January) and a few online etiquette guidelines to make sure everyone is comfortable with the tool and one another - and me!

Furthermore you should know:

- The online focus group will be open for participation 24-hours a day from 28 January to 1 February. There will be an introductory activity available from 24-28 January to 'break the ice'. There is no obligation to be available before 28 January, but it does give us a bit more time to get to know one another.
- All focus group material will be destroyed at the end of the project. You will be free to withdraw from the study at any stage and you do not have to provide any reason for leaving.
- All data will be anonymised and you will not be identified in any reporting of the data gathered. On completion of the focus groups each participant will be given a certificate of participation for their portfolio.

- The results will be published as a report for QAA and may also be published in a journal or presented at a conference.

Your first task (yes - here we go!!)

Please visit our blog at nahpbloggers.wordpress.com and let me know in a response to this email if you can access it on your computer. It is now viewable by all, but I will be inviting you to the password-protected section tomorrow. For now I just need to ensure that all participants can see the blog - or else this 'ain't gonna' work!

That's it for now. Please never hesitate to ask me questions - fire away, that's what I'm here for!

Kindest regards,

Christina

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Visit EdDev websites:

Vista Staff Help at www.napier.ac.uk/webct/staff/

Be Wise, Don't Plagiarise at www.napier.ac.uk/ed/plagiarism/

Blog welcome and ice-breaking activity

'28 January 2008

Monday: Getting to know you!

Filed under: Uncategorized - by cmainka @ 10:13 am

Welcome to the NAHP Blog and thank you for joining us!

Before we get started let's get to know one another first. We're from a number of different institutions with a variety of backgrounds and a range of online learning experiences, which is great and makes for good conversation!

Your task for Monday:

Please, in the 'comments' box below (you may have to click on 'comments' first), let us know a few things about yourself, such as:

- your name (how would you like to be addressed?)
- your institution and subject area
- your experience of using online communications tools (informal and academic)
- one thing you enjoy doing in your free time.

Please sign off with your name and don't forget to click 'submit comment' for us all to see what you have to say! Otherwise take a wee look around!

Oh, remember, my name is Christina and I'll be online with you until Friday. You can read a bit about me and how I pass the day at www2.napier.ac.uk/ed/boe/christina.html (opens in a new window).

Tomorrow (Tuesday) we start exploring graduate attributes and your thoughts on these. In order to return, the link to this page is nahpbloggers.wordpress.com/ (you will be prompted to login). Save it to your favourites!

I look forward to being online with you all - please holler for help at any time about anything via email at c.mainka@napier.ac.uk. If things go wrong - don't worry - we'll help you get it sorted.

Cheers,

Christina'

Student tasks

'29 January 2008

Tuesday: Ready, set...go!

Filed under: Uncategorized - by cmainka @ 6:30 am

Good Morning all and thank you for rejoining us today.

So far we have heard from [student names removed to preserve anonymity] and I know of a few more still to arrive. Good to have you all on board. Online technology makes it possible for us to communicate from three different institutions: Napier University, Glasgow Cale and QMU. The wee castle next to my comments is in fact Napier's Tower which resides in our Merchiston campus. But enough - now to today's task!

As you know, the research project you have kindly offered to participate in aims to identify graduate attributes and explore your thoughts on these. QAA has published a list of graduate attributes but we find the attributes hard to understand and somewhat off putting so with your help we're going to try and create our own list! Are you **ready...?**

Your task for Tuesday:

Please consider the following two questions and answer them as best you can. You are invited to respond to anyone in our group - no need to wait for me! Please may I ask that everyone signs off with their name so we see immediately who the comment is written by.

- You are now nearing the end of your programme (yeah). If you had to make up a list of the skills, knowledge and attributes gained during your time enrolled on your programme, what would you tell a potential employer?
- You've been shortlisted and you really, really want this job. Which key attributes can you identify that you feel would help you stand out from the rest?

That's it for today and depending on how things go we may spill over into tomorrow with these questions - but that's ok and so for now it's...**set and go!**

I look forward to hearing from you real soon.

Cheers, Christina'

30 January 2008

'Wednesday: More about you

Filed under: Uncategorized - by cmainka @ 6:58 am

Good morning once again!

Thank you to [student names removed to preserve anonymity] for kickstarting our exploration of attributes and skills you feel you have gained during your time enrolled on your current programme. Together they have mentioned (among other things!) communication skills, team working skills and a greater awareness for the role their speciality plays in the world around them. [Name removed] helpfully followed up and describes her learning journey to us (which I will have to comment on today - [name removed], you're a night owl!)

Your task for Wednesday

Take a look at Tuesday's comments. Can you identify with anything of what has been said so far? What's the same for you? What's different and where/when did it all take place? Maybe we could try and dig just a wee bit deeper. For example:

- If you feel your **oral communication skills** have improved - how exactly? Are you now conducting yourself in a manner **professionally** in a socially, culturally and/or ethically more informed way - more than before? Why is this the case do you think?
- **Written skills:** Have the mechanics of your written skills improved or is there more? Has your **thinking** changed when researching a topic, collecting evidence, building an argument, formulating ideas?
- If you find you are now **working more effectively** - why? How would you describe effectiveness at work? Have your problem-solving skills improved? Are you now quicker at identifying, analysing, and evaluating a situation - maybe even a complex one that you would have struggled with before? If so, are the decisions you make at work more/less informed by evidence (for example case studies, recent research results, etc) or can you rely on your own experience?
- **Team working skills:** If you now feel more at ease working in a group - what exactly has changed for you and how did that change come about? For example, maybe you feel you can contribute more to a group as your knowledge and understanding in your speciality area have grown. Maybe you have gained more advanced technical skills giving you the confidence to ask questions and/or express an opinion that differs from the others?

...and so on!!

There you go and I sure hope to see you online again real soon. Remember, it's never too late to join us.

Cheers,

Christina'

31 January 2008

'Thursday: Hello world...!

Filed under: Uncategorized - by cmainka @ 6:12 am

Hello, hello out there!

It seems we have lost a few of you and just in case some of you are suffering from information overload - rejoice! There is no new request today other than to browse through Tuesday's and Wednesday's posts and comments and to let us know whether you can identify with the **attributes listed, skills learned or reflection encouraged** throughout your programme? Simply click on the links under 'recent posts' and 'recent comments' on the right-hand side column of this page.

If, and only if, you are ready (this question is coming at you tomorrow more formally) can you let us know whether or not you have ever become involved in **research activities** during your time at uni? Has this opportunity been beneficial to you? If so (or not) please let us know!

I look forward to hearing from everyone.

Cheers,

Christina'

1 February 2008

'Friday: And (not) away we go!

Filed under: Uncategorized - by cmainka @ 6:54 am

Good morning all!

'Twas really good to see the flurry of activity yesterday - thanks to all for joining and/or rejoining our blog. I will be sending out an email today asking you to indicate your availability Mon and Tuesday as one week is not proving to be a realistic timeframe for our conversations - and that is great!

I have responded to most comments posted since Wednesday, so do take a look - I'm keen to learn even more from you, as you will see.

As [student name removed to preserve anonymity] has highlighted, we are starting to see many similarities, but also some differences, between the institutions and your programmes. That's what we're trying to figure out as well! Written and oral communication skills, problem-solving skills, critical thinking, reflection, group-working skills as well as a greater awareness of issues related to your respective subject areas and how they sit in the bigger scheme of things are all areas that you feel your programmes have helped you develop over the years.

We'd now need to focus a bit more on the research elements within this in order to identify (or not) any teaching-research linkages and the role they play. There seem to be some differences here and [student names removed to preserve anonymity] have already made many relevant comments (see Thursday's comments) related to research opportunities at their respective institutions. So, let's build on that!

Your task for Friday: Please could you consider the following questions and share with us your thoughts. I will keep this blog open at least until Tuesday so if you're off to the Isles over the weekend, no worries at all.

- Are you aware of your institution's or your programme's research policy?
- What role would you say research plays in your programme (is it a core, marginal, no element)? Which programmes have/have not emphasised conducting research as a part of learning?
- If you have been offered research opportunities, do you feel they have benefited you? If so in what way? (Here it may help to think about the approach to, process and nature of conducting research and whether or not the skills learned and awareness raised have influenced your daily way of working in any way?)

As always thank you very much for taking the time out to be an active contributor to our very own mini research project and I look forward to seeing you - online, of programme.

Cheers,

Christina'

4 February 2008

'Monday: QAA says...

Filed under: Uncategorized - by cmainka @ 6:06 am

Good morning!

Thank you to [student names removed to preserve anonymity] (...who did I forget...sorry, sorry!?) for your comments related to the role research plays at your institution and more importantly what it means for you. There are quite some differences of opinion here, ranging from disbelief to informed reason and it will take some doing to tease out why. Nonetheless, research and evidence-based practice has affected you all in one way or the other.

In the meantime, however, it's time to let the cat out of the bag! Here they are, **QAA's list of graduate attributes:**

- critical understanding
- informed by current developments in the subject
- an awareness of the provisional nature of knowledge, how knowledge is created, advanced and renewed, and the excitement of changing knowledge
- the ability to identify and analyse problems and issues to formulate, evaluate and apply evidence-based solutions and arguments
- an ability to apply a systematic and critical assessment of complex problems and issues
- an ability to deploy techniques of analysis and enquiry
- familiarity with advanced techniques and skills
- originality and creativity in formulating, evaluating and applying evidence-based solutions and arguments
- an understanding of the need for a high level of ethical, social, cultural, environmental and wider professional conduct.

These are the attributes and skills QAA would like to see you leave uni with.

Your final task

What do you think? Can you identify with all/some/none of the above list? Can you provide an example? We've already highlighted skills QAA does not list at all such as team-working skills - anything else missing in your opinion? Please do let us know - if you can still find the time!

We have today and tomorrow for comments - have a great day and hope to see you online real soon.

Cheers,

Christina'

5 February 2008

'Tuesday: Finally...

Filed under: Uncategorized - by cmainka @ 6:51 am

Good morning!!

Blame it on the-beginning-of-term madness here at Napier University, but I've dropped behind just a bit, which is why many of you will find comments today on things you have kindly written already a day or two ago. Thanks very, very much for your thoughts and do know you have not been ignored, but rather I have been swamped.

There is no new task for today (hurrah!). I have asked a few questions around your comprehensive and helpful responses and with those and possibly your responses to them we have nearly come to the end of our exploration. I will be hanging around for a few more days to tidy up and answer any questions you may still have or respond to any comments you may still have the time to make.

Please feel free to scroll through our seven days of communication and review, comment on any aspect you like at all. You will hear from us in an email by the end of the week for sure.

In the meantime - best of luck to you in everything that you do. It was a pleasure to work with such a courteous and engaging group of students. Thanks very much for that indeed.

Kindest regards,

Christina

P.S. Just for fun - and apologies to those of you who have seen this - here YouTube's most popular video of all times: *Evolution of Dance* at www.youtube.com/watch?v=dMH0bHeiRNq,

Turn your speakers up and enjoy! Don't ask me what made me think of that just now'

9 Acknowledgements

We wish to record our thanks to the programme leaders, other staff and students who willingly gave their time to contribute to this report. Special thanks to Dr Christina Mainka, Academic Development Advisor at Napier University, for all the work on the student blog.

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