

Assessment workshop series - No 8

Assessing personal transferable skills

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Assessing personal transferable skills - An overview

Dr Colin Mason, SALTIRE, University of St Andrews and Workshop Director

Abstract

This short paper provides an introduction to the last of the enhancement themes workshops on assessment, Assessing personal transferable skills. It seeks to draw together the challenges of those approaches outlined in keynote and case study presentations as ways, or potential ways, of addressing the problematic nature of some of the issues for academic and support staff and students as well as institutions. This topic is underpinned by discussions that have arisen in many of the preceding workshops on assessment and develops some of the themes in practical ways. Thus, topics included here are:

- the nature and definition of 'skills'
- what is meant by personal learning and how or whether such learning is transferable
- whether learning of this sort is integrated within the curriculum (often implicit) and thus is 'acquired' through processes of engaging with teaching of disciplinary content
- whether such learning is explicitly identified, perhaps involving curriculum mapping to guide students throughout their discipline-based studies and sometimes compartmentalised (a stand alone module or learning opportunity)
- how and whether learning of this sort is assessed formally (often for credit) or informally (often as part of development)
- how best to represent the totality of a student's learning experience when this includes knowledge and understanding as well as skills that may have been assessed for credit with grades, or on a pass/fail basis, or that have simply been developed by opportunities both within and outwith the taught curriculum
- what might the role be of personal development planning (PDP) as a contributor to the learning processes involved and as a means of differently (better?) representing such learning
- and finally, how such learning is part of a wider set of attributes that contributes to the development of student 'employability' in the context of career development and planning.

The set of topics described above is addressed by different presenters in different ways, some focusing upon specific topics only, others bringing together two or more aspects, while others address holistically the whole set from a particular perspective. It is not my purpose here to provide a structured framework drawing out key messages from each presenter's contribution in the sequence of the programme. Rather, I intend to draw upon the research literature (particularly the Learning and Teaching Support Network Generic Centre commissioned series of briefing papers on Learning

and Employability and Assessment - now part of the Higher Education Academy) as well as presenters' contributions to pose a series of key questions that provoke further exploration of the theme for this workshop, especially during the breakout session discussions.

How do students develop personal transferable skills?

'Some (higher education) teachers were recently asked for their views on the teaching of personal transferable skills. Most thought that the teaching of personal transferable skills occurred incidentally when the students were encouraged to...There was conviction that personal transferable skills were developed as a means to an end. There was little evidence of actual instruction in personal transferable skills. Comments such as 'I am in a complete state of uncertainty about the problem of personal transferable skills. Please help if you can'. Such a *cri de coeur* points to the dilemma in which teachers have been placed in relation to the teaching of personal transferable skills.'

Now this paragraph is actually an amended version of the opening section of a classical work on spelling¹ (see original paragraph reproduced in Appendix I), but it highlights a dilemma facing higher education today. Are personal transferable skills caught or taught? The summary conclusion about whether spelling is caught or taught derives from the research literature available at that time, that a wide variety of training techniques should be introduced to supplement existing teaching approaches as well as acquired skill that arises through reading, not least a change of attitude by teachers to become more positive about spelling and thus pass on to their students a more positive attitude toward their own (good) spelling abilities. Clearly, there is a message for higher education and personal transferable skills - as for spelling, they are both caught and taught. This begs the questions, what are personal transferable skills and if they can be taught as well as caught, how can we assess whether they have been acquired or developed, and how is such learning then represented as student achievement?

What is the place of personal transferable skills in the higher education curriculum?

So, what are personal transferable skills? There is considerable confusion in the higher education literature about the terminology used to describe 'skills'. Yorke and Knight² have constructed a conceptual model, USEM, to better define employability (in higher education). Thus, employability is influenced by three other components (Understanding, Efficacy beliefs and Metacognition), in addition to Skills. The phrase 'skilful practice' has been introduced as being a more appropriate working definition of the retained term, skills, which includes key skills. Other terms used to qualify different subsets of skills are core skills, key skills, generic skills. There may be some artificial national boundaries surrounding nomenclature eg core skills, a term often used in Scotland, is perhaps interchangeable with key skills, as used in England. What constitutes particular skills in either of these definitions also varies however. After Dearing (1997), key skills included communication, information technology skills, numeracy and learning to learn skills. Nevertheless, many other skills lists have been drawn up and an example compendium of these, and which institutions are doing

¹ Peters M L (1967) *Spelling: Caught or Taught?* Routledge and Kegan Paul Ltd, London.

² Yorke M and Knight P T (2004) *Embedding Employability in the Curriculum*, LTSN series, Learning and Employability No 3.

what to develop them in their students, can be found in the project, **TRANS**ferable Skills in **EN**gineering and their **DIS**semination, **TRANSEND**³. Generic skills are sometimes referred to as the transferable skills, ie those skills that students may require regardless of their discipline or employment context. These may include a variety of those aspects of employability defined under three headings: personal qualities, core skills, process skills as summarised in Learning and Employability No 3. In short, a definitive, agreed set of skills, including personal transferable skills, that students in higher education should be fortunate enough to be born with or expected to acquire, simply does not exist. This is not only true but also desirable. Different disciplines place emphasis on different aspects of their curricula and thus core or key skills for a geographer differ (albeit sometimes only slightly) from a chemist or maybe more so from an historian, though generic skills should be more common. We will see examples of the range of transferable skills developed by undergraduate students in chemistry at the University of St Andrews presented by Professor David Cole-Hamilton and other skills sets that are important for career planning identified by contract research staff in the presentation of Dr Colin Mason.

This may highlight another source of confusion - the use of the term 'academic skills'. Are these universal, or are these also discipline-related? I do not, anymore than others in this field, have clear answers to these questions. In one sense, I also wonder whether it really matters, but nevertheless present a classification view of higher education knowledge for debate (Appendix II). This draws on sources already mentioned but also includes views of education based upon work in the 1950s and 1960s, on learning objectives.

Finally, a further view of what constitutes effective learning in the higher education curriculum, incorporating skills, classified as either disciplinary or trans-disciplinary, is presented. This model is part of the ongoing work of a group in Scotland defining an effective learning framework as a tool to help institutions design curricula that facilitate personal and professional development planning, integrating academic, personal and career development opportunities both outwith and within the curriculum (Appendix III). Perhaps the beauty of this model is that the trans-disciplinary component does not necessarily convey the meaning that the skills involved are transferable, a moot point raised by Mantz Yorke⁴. One argument is that many of the skills such as 'arguing' in an academic context, are appropriate, but are context-dependent (unlike generic practical skills such as using email or a spreadsheet) since deployment of similar skills in employment might be problematic for a new graduate employee. Thus, direct transfer may be inappropriate, but knowing when and how to use or adapt particular skills in new situations is a higher order skill, characteristic of professional behaviour and part of the set of skills of self-awareness, self-regulation or metacognition, what Schon⁵ might refer to as the 'reflective practitioner'. Peter Knight will discuss personal transferable skills in the wider context of employability in higher education in his presentation.

³ Contact: Andrew J Merchant, Stefaan J R Simons, Ming Tham and David B F Faraday (2001) The TRANSEND Project, an FDTL project, carried out by a consortium of institutions: University of Birmingham, University College London, University of Newcastle-upon-Tyne and University of Surrey.

⁴ Yorke M (2004) Employability in higher education: what it is - what it is not, LTSN series, Learning and Employability No 1.

⁵ Schon D A (1983) The Reflective Practitioner - How professionals think in action, Arena, reprinted 1996.

How (or even) should transferable skills be taught?

The TRANSEND project neatly captures the nature of the debate - offering two workshops for the dissemination of good practice focusing on:

- embedded and integrated skills development
- bolt-on skills development.

There is heated debate about whether skills per se should be taught explicitly or caught, ie developed by providing learning activities within curricular designs that leave students no alternative but to engage in more than a mere cerebral way with disciplinary knowledge. Some (traditionalists often) argue that students come to university to study a discipline, English say, and that it is not even a consideration. The argument here is of a different order. Should stand-alone activities where skills are developed be provided within the curriculum, and if so how? Study skills, or learning to learn academic skills, are clearly important to enable students to gain maximum benefit from exposure to new information, ideas and conceptual frameworks presented by leading scholars in their disciplines, but rarely (until maybe their final year of studies!) do the majority of students appreciate taught courses in academic reading, speed reading, note-making, essay writing, examination technique etc that are provided either by central student services or even by academic departments. Such courses are perceived as remedial and even when they carry academic credit are unpopular. An alternate approach is to provide learning to learn opportunities within the curriculum. These require much more attention by academic departments to providing formative learning experiences - essays, laboratory reports, projects etc that are carried out by students and handed in for assessment by tutors who then provide constructive feedback that acknowledges and compliments what is good, corrects what is wrong in a sympathetic manner and points to areas for improvement and how this might be achieved. There are no marks at stake here, the student is engaged in the learning activity of the discipline but through feedback is encouraged to improve a particular academic skill (in this case, writing). Similar opportunities arise through collaborative group work for the development of inter-personal skills such as leadership, negotiation and giving feedback; oral skills through giving verbal presentations and so on. These are all examples of what Peter Knight⁶ refers to as low risk, low stakes assessment (Feedback: formative assessment) compared to high risk, high stakes (Feedout: summative assessment). Such activities provide opportunities for guided practice, a pre-requisite for skills development.

So, why isn't there more of this going on? I suspect two forces are conspiring together to limit such opportunities. On the one hand, while students recognise the benefits of formative assessment and wish to have more feedback on their work, they are also aware of the need for strategic effort directed at those assessments that 'count' - summative assessments. Consequently, students do not readily engage in non-summatively assessed learning tasks - they have lots else to do: working (part or even full-time), socialising and doing summative assessments. They believe they are already over assessed. On the other hand, academics also believe that students are over assessed and it is they (academics) who have the increasing marking loads. They also

⁶ Knight P T (2002) Summative Assessment in Higher Education: practices in disarray, *Studies in Higher Education*, 27, No 3, 275-286.

think that they themselves are over assessed (research assessment exercise; subject reviews, by the Quality Assurance Agency for Higher Education; peer review etc) and they too behave strategically, perhaps avoiding additional assessment that does not 'count'.

In summary, maybe it is more desirable to embed and integrate skills development in the curriculum. Professor Cole-Hamilton will present the case for this approach in the chemistry curriculum at the University of St Andrews. However, this requires serious attention to be paid to curriculum design and commitment (as well as skill) from staff to implement such programmes. An alternate approach where the students develop career development - associated skills through taking an elective credit-bearing module in Career Planning has been pioneered at Stirling University in Scotland. This approach will be presented by Graham Nicholson, now Director of the Careers Service at the University of Dundee.

How should transferable skills be assessed?

This question naturally flows from the preceding section where transferable skills are formally assessed for credit. In some cases, assessment is indirect. Here, students only engage in a process designed to develop skills as a means to an end, creating some academic discipline-based product of learning (an assessed assignment) that is judged for quality of content. More often, assessment is direct, where skills, such as giving a verbal presentation, are explicitly defined as a learning outcome and criteria for levels of performance are given quantitative credit ratings. Marks or grades (for different components eg job study, CV, application, presentation, interview, action plan) in Stirling University's Career Planning module are aggregated to produce a final credit-bearing grade. Graham Nicholson will expand on this approach in his presentation.

An alternative approach is for transferable skills to be assessed informally. This often means engaging students in assessing their own level of development in particular skills. Marks or grades - as such - are not at stake, but often, especially if students make early self-assessments, they can then gauge their own progress after engaging in learning opportunities where further skills development has been possible. Jean Gowans of the Careers Advisory Service at the University of St Andrews, presents an informally assessed, 'certificated' but not academic credit-bearing, voluntary (but monitored) attendance programme in Career Development. Further, an example of pre and post self-assessment of transferable skills by contract research staff at the University of St Andrews, demonstrates the effectiveness of even short-course taught programmes. Finally, another informal route for acquiring transferable skills is afforded by students who volunteer as part of a network of peer support for their colleagues and engage with PDP as a means of recording their experiences. These activities are completely extra-curricular. Chris Lusk, Director of Student Support Services at the University of St Andrews, presents the way she informally assesses skills development, through provision of a reference for students wishing to pursue further related employment. This reference is informed by student-authorized consultation with PDP records. Clearly, the learning, in this case development of transferable skills, can therefore be represented in different ways, some credit-bearing, some not.

How should such learning be represented?

The UK approach to higher education, until relatively recently, has focused upon the final year (classified honours) degree certificate. At least this was the focus, perhaps until the skills revolution, instigated in the early 1990s by the Enterprise in Higher Education Initiative (in England) and subsequently by additional focus upon teaching quality audit processes that searched for examples of implementing the development of personal transferable skills within taught programmes. The honours degree, predominantly though not exclusively, reflected attainment of knowledge and understanding of various disciplines at higher level, sometimes at the frontier of current scholarship through engaging students in research projects and dissertations. With the exception of professional degree level vocational disciplines such as medicine, law, architecture, nursing, performing arts etc, skills assessment was very definitely indirect - academic skills such as analysis and creativity; generic practical skills such as word-processing; and personal skills such as oral communication through presentations were subsidiary to the 'content' which was generally what was rewarded in assignments. Such content was (relatively!) easily marked or graded and notwithstanding the difficulties involved in appropriately aggregating grades, marks and scores, and so on, an overall measure of performance could be ascertained and one of four 'class' labels (First, Upper Second, Lower Second and Third) could then be attached to a student, thus describing their 'attainment'. The students, their institutions and other educational institutions, as well as employers, had a common understanding of what the labels meant. The process of involving peers in external examination of degree programmes 'guaranteed' standards for each of these labels right across the sector. Behind closed doors no one necessarily believed this. Even within institutions, departments argue about how much easier it is for students to get a First in a different discipline and how much harder it is for them to get a First in their own discipline. For departments that award high proportions of 'Firsts' engagement with this debate may be less, especially if their perception is reinforced by discipline-dependent variations in student achievement across the higher education sector.

The current picture is even more complex. Disciplinary knowledge and understanding are still important, but skills are very much on the agenda. In some disciplines, practical skills are not only crucial but the level of attainment is defined as 'mastery', and not necessarily achieved by some arbitrary (40 per cent, 60 per cent or even 80 per cent) pass mark, but the full pass (100 per cent) mark that must be achieved by meeting all the criteria defined in a competency profile for a particular skill. Various transferable skills outlined above may be assessed and graded in such a way that may allow aggregation with other grades from modules. However, they may also present a problem similar to that provided by discipline-based practical skills that require competency (100 per cent to pass), and if not achieved, then fail. Accordingly is it fair - or even correct - to attempt to aggregate a set of grades such as 55 per cent, 70 per cent, 45 per cent, 65 per cent, Pass (100 per cent) and Pass (100 per cent)?

Other learning opportunities either within or outwith the curriculum that are only assessed informally do not afford award of grades and thus cannot be integrated at all with academic grades. Rob Ward, Director of the Centre for Recording Achievement,

will be addressing how such seeming incompatibilities of the higher education summative assessment system can be circumnavigated. The introduction of progress files, that comprise both a transcript, preferably that conforms to an agreed presentational format, and a way for students to represent their own personal, academic and career development through a personal and professional development planning process, has been proposed to offer a representational route that is both more informative and accurate.

There is an increasing interest in technology-assisted compilation of the records of such activities through electronic checklists, electronic portfolios and so on. Professor Cole-Hamilton will mention a system devised by the Royal Society of Chemistry that he and colleagues are piloting at the University of St Andrews with first year students and third and fourth year student mentors. However, such innovations involving developing more efficient, smarter and more aesthetic software systems should not detract us from the key business of assisting students (and more of them) entering higher education from increasingly diverse backgrounds to develop as flexible, adaptable people, committed to learning for life. Some characteristics of such students in higher education as lifelong learners are that they are morally, ethically, socially, culturally, politically and economically sensitive, as well as aware of their own strengths and weaknesses when working codependently as well as independently, and are able to communicate articulately and effectively about these qualities and attributes both in similar and new contexts with potential employers, by using examples and referring to experiences within the curriculum of degree programmes and through other personal experiences gained outwith the curriculum as part of ongoing commitment to career development and employability.

Appendix I

Margaret L Peters, The spelling problem, Ch 1, pp1-17, in *Spelling: Caught or Taught?* Routledge and Kegan Paul Ltd, 1967

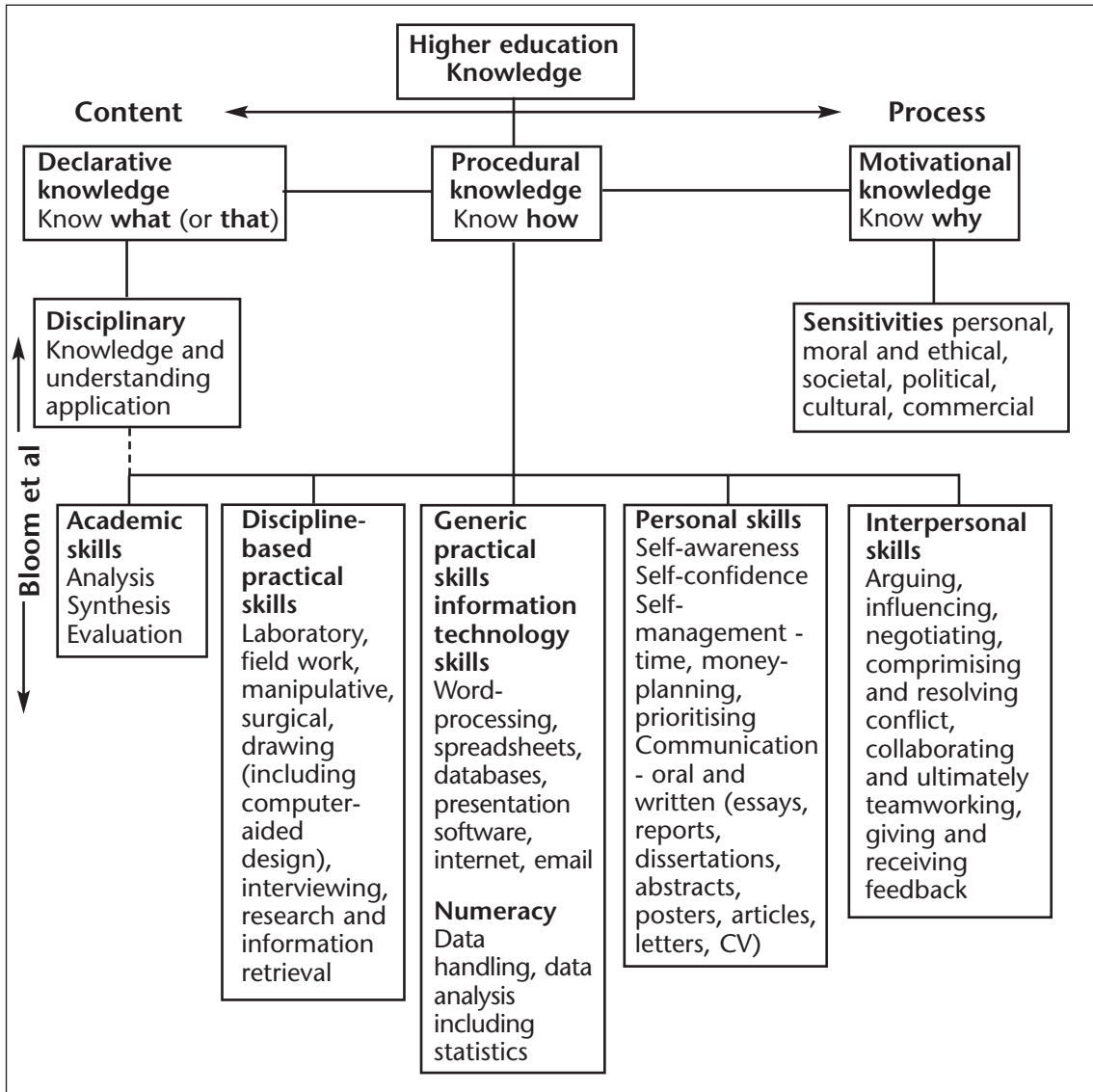
Some primary school teachers were recently asked for their views on the teaching of *spelling*. Most thought that the teaching of spelling occurred incidentally when children were encouraged to write about their interests, with the enlargement of vocabulary involved in such activities. Phrases such as 'when the need arises', 'association of ideas' appeared. There was conviction that *spelling* was a means to an end, and that it should only be the servant of creative writing. There was little evidence of actual instruction in *spelling*. Comments occasionally appeared such as, 'I am in a complete state of uncertainty about the problem of spelling. Please help if you can'. Such *cri de coeur* points to the dilemma in which teachers have been placed in relation to the teaching of spelling.

The learning of skills, however, is not just a matter of practice; for there are other very important factors as well which will be discussed later. Much of this monograph will be concerned with the factual question of the extent to which a skill such as spelling can be picked up or caught.

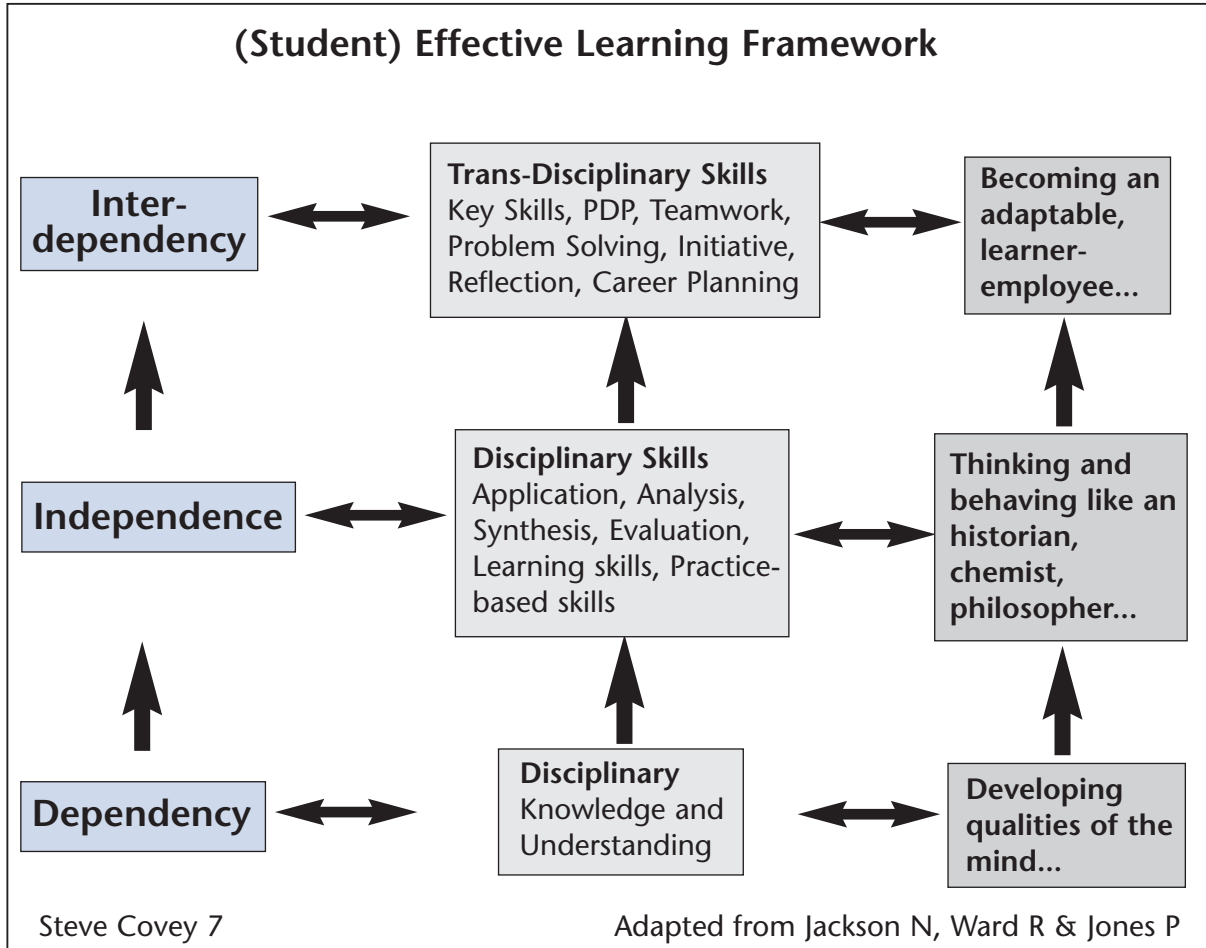
It may well be the case that there are good reasons for learning to spell which the traditional teacher never bothered to make explicit. It may also be the case that there is something to be said for lessons of a formal type in teaching this as well as other skills, which must supplement other more informal ways of handing them on.

Appendix II

Classification view of higher education



Appendix III



Employability: judging and communicating achievements

Professor Peter Knight, The Open University and Professor Mantz Yorke, Liverpool John Moores University

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Introduction

This Guide is for colleagues who are responsible for programmes and who need to ensure that those programmes make a clear contribution to student employability. It is also for those who work with programme leaders, particularly for educational developers. It probably goes into more detail than senior policy-makers want.

The main idea is that employers value achievements that we find it hard to assess in traditional ways. The argument is that we need a more differentiated, programme-level approach to assessment. This involves disrupting the assumption that assessment has to be about measurement and numbering and substituting the view that assessment is about judgement, which can take many forms.

Preview of the main points

- 1 Curriculum goals should be assessed because that which is assessed gets taken seriously. That which isn't, doesn't.
- 2 Different views of employability imply different learning, teaching, curriculum and assessment approaches. This paper concentrates upon employability as the development of complex achievements. Other definitions are not excluded, but they are not central to this paper.
- 3 Many of the complex achievements that teachers and employers value can only be reliably and affordably assessed on a pass/fail basis. Even then, costs may be greater than a programme can afford.
- 4 Students need to be 'knowing students' in order to benefit from assessment arrangements that sustain complex learning.
- 5 Students can be helped to develop claims to those complex achievements that cannot, or ought not to be, assessed by more traditional means.
- 6 Portfolios are one way of helping students to make claims to complex learning achievements.
- 7 Self and peer-assessment should be included in a programme assessment plan.
- 8 The assessment of competence, particularly of fitness to practise, is expensive. It needs to be addressed through a programme assessment plan.

1 Premises

We may plan a fine curriculum and try very hard to implement it faithfully, only to find that what students experienced was rather different. Typically any such mismatch takes the form of aims, such as promoting autonomy, creativity, critical thinking or understanding, being frustrated by assessment arrangements that somehow encourage students to play safe, to rehearse any party line they can detect and to stockpile information in preparation for examinations.

Assessment drives the understood curriculum:

- It tells students what the aims of the curriculum really are, because 'what matters' gets assessed;
- It tells them how to work, because it seems sensible to prefer ways that pay off in terms of good grades;
- It tells them when to work, because tasks that are not assessed give students implicit permission to work longer on their part-time jobs or to spend more time enjoying themselves.

This Guide suggests ways of bringing the curriculum goal of enhancing student employability closer into line with course and programme assessment practices.

2 Employability

The word 'employability', in the context of higher education, implies ability to be employed in a 'graduate job', something rather different from actually being employed. Figure 1 summarises five common descriptions of 'employability' and adds notes on the assessment implications of each.

Each definition of 'employability' has value in some circumstances but the Learning and Employability series concentrates on the fifth, which is most firmly based on research evidence about what employers value.

When employers are asked what they look for when hiring graduates, they are inclined to say that

- having a good degree is necessary but it is little more than a ticket to compete for a job;
- chances are improved when applicants have credible claims in respect of 'key' or 'transferable' skills;
- what they are really looking for - what they use to choose amongst the skilful graduates - is something more complex.

Figure 1 Seven meanings of 'employability' and some assessment implications

What is employability?	Notes	Assessment implications
Getting a (graduate) job	Employment figures are taken as a robust indicator of employability.	No particular implications, as long as HEIs' assessment practices do not impede students in getting jobs.
A consequence of 'having' key skills	The Dearing Report said all students should develop four 'key skills'. Others have been added. There is some scepticism about the whole 'key skills' enterprise (see the companion Guide, <i>Employability in Higher Education: what it is - what it is not</i>).	The search is for reliable and valid ways of certifying things such as communication, numeracy and problem-solving. Measurement theory demands repeated, high-quality judgements before achievement is warranted. Arguably, such achievements are too complex for affordable and reliable measurement.
A likely effect of having had good work experience	Work experience consistently correlates with success in the labour market.	See section 7. Reliable and valid assessment of workplace performance is expensive. Formative, conversational assessment is cheaper but cannot contribute to warrants of achievement.
A product of skilful career planning and interview technique	Employability is in part about knowing the rules of the job-seeking game. Most of the unemployed graduates interviewed in <i>Skills plus</i> project had fallen down here.	Assessments that help students to identify and then present their achievements effectively are invaluable. This says less about assessment methods and more about making the rules of the learning and employment games very clear.
A mix of cognitive and non-cognitive achievements and representations	See, in this series, the following Guides: <i>Employability in Higher Education</i> and <i>Embedding Employability in the Curriculum</i> .	Understanding can be assessed reasonably reliably, and often affordably. Skills present problems (see above), although simplified skills can be reliably assessed. Beyond that, assessment may be best treated as an aid to learning and claimsmaking: thought needs to be given to letting go of trying to certify complex achievements.

Note: The darker the shading, the more appropriate it is to give priority to formative assessment to support claimsmaking because it is harder to see how reliable, useful, affordable and valid assessments could lead to generalisations about competence and performance - to certificates and warrants.

Consider the three lists in Exhibit 1, which are fairly representative of what researchers find that employers say.

Such research underpins our description of employability as

a set of achievements, understandings and personal attributes that make individuals more likely to gain employment and be successful in their chosen occupations.

Now, if employability is 'being attractive to employers' and if that means 'degree and skills and what is in Exhibit 1', then a conclusion is that higher education is firmly in the business of promoting complex learning - in other words, its goals are necessarily more fuzzy and extensive than many might acknowledge. Elsewhere we (Knight and Yorke, 2003b) have described employability as a blend of understanding, skilful practices, efficacy beliefs (or legitimate self confidence) and reflectiveness (or metacognition). Notice that some of these elements resist conventional, measurement-driven assessment approaches. This is a central point. Insofar as employability involves the promotion of achievements that cannot be specified completely and unambiguously, it cannot be measured, although local judgements can be made and others, such as employers, might choose to generalise from them.

Exhibit 1 What employers value in new graduates

Peter Hawkins and Jonathan Winter (1995) highlighted 'career management skills and effective learning skills': self-awareness; self-promotion; exploring and creating opportunities; action planning; networking; matching and decision-making; negotiation; political awareness; coping with uncertainty; development focus; transfer skills; self-confidence.

Lee Harvey and colleagues (1997) found that employers want graduates with knowledge; intellect; willingness to learn; self-management skills; communication skills; team-working; interpersonal skills.

John Brennan and colleagues (2001) found that UK graduates considered the top ten competencies required in current employment to be: working under pressure; oral communication skills; accuracy, attention to detail; working in a team; time management; adaptability; initiative; working independently; taking responsibility and decisions; planning co-ordinating and organising.

3 Judging achievement

Assessment is often a high-stakes business, by which we mean that it is vital that judgements have considerable public significance, as with examinations and graded coursework. When achievement is to be warranted - to be publicly certified or attested - then the judgements need to be reliable.

Some achievements, especially those connected with understanding and the more straightforward skills, can be fairly reliably assessed in much the same way that they are currently assessed. Practice might be improved by refining the assessment tasks; writing programme assessment plans to ensure that these learning outcomes are repeatedly assessed throughout the programme; developing assessment criteria which students have and understand, and which assessors use; and making resources available for double marking of all summatively-assessed work, with the exception of work which leads to clear right/wrong answers.

Measurement theory suggests that much higher education assessment practice, which attends to complex achievements, cannot deliver the certainty it feigns. This is:

- Partly a funding problem (measurement of any except the simplest things is expensive);
- Partly an orchestration matter (greater certainties would be possible if there were programme assessment arrangements that generated multiple estimates of programme learning outcomes);
- Partly a matter of pragmatics (how much assessment is it reasonable to impose on learners and teachers);
- Partly an epistemological fact (some things resist measurement).

It is therefore timely to re-appraise 'assessment'.

The problem for high-stakes assessment is that it does involve trying to generalise from performance on a couple of tasks in one course. However, in social science there is a widely-held view that generalisation requires multiple judgements, made by more than one observer, using indicators that are understood by them and by the students, and which the observers are skilled in using in a consistent manner. This is inconvenient because it is expensive and difficult to come up to these standards. If we understand 'assessment' to mean high-stakes measurement for the purposes of warranting, then there are problems with seeing how we could assess some of the notions of employability in Exhibit 1, let alone how we could afford to do it.

The less that assessment practices conform to the demands of measurement theory, the less reliable are any predictions about future performance, especially when it comes to performance in quite different contexts. This helps to explain why employers are so often disappointed by graduates. Universities and colleges often suggest that graduates have certain achievements to their credit but base their judgements on scanty evidence which is often associated with 'tame', rather artificial tasks done in academic surroundings.

Yet complex achievements are assessable, although they may resist (affordable) measurement. Apart from the scientific approach to judgement (measurement), there is a legal approach (weighing evidence and claims) and an artistic one (connoisseurship). Many interesting results of higher education cannot be well captured by the measurement approaches developed in natural science, but they can be reached by other approaches. If we adopted either of those other approaches:

- 1 Judgements would be based on appraisal of evidence of achievement.
- 2 There would be indicators to inform the identification of common features of better and worse performances.
- 3 Those judging would be familiar with the indicators, as would the learners who create the evidence.
- 4 If the stakes were high, perhaps because a licence to practise rested upon the outcome, several expert judges would review many pieces of evidence, taking particular care over boundary decisions (Pass/Fail). If the stakes were lower, as when creating feedback to help further development, assessment could take any form likely to create useful and informed suggestions. Given the relative costs of

formative and summative assessment and the difficulties high-stakes assessment has with complex achievements, the effect would be to prefer low-stakes approaches to judging many achievements.

A major objection to this position is the claim that students will not take this formative assessment seriously; nowadays they are so instrumental and preoccupied with their part-time employment that they will only do the minimum to get their upper second class degree, so the suggestion that assessment systems should make more use of low-stakes procedures looks otherworldly. The fear is that whatever is touched by low-stakes assessment alone will be ignored. Four responses are:

- Students are more likely to take low-stakes, formative assessment seriously if they understand the purposes. This is not a matter of telling them once but of saturating programme and module handbooks, as well as teachers' discourses, with messages about the importance of formative assessment.
- Low-stakes tasks are taken seriously when they are preludes to high-stakes ones. Set two low-stakes task, telling students that the third task in the sequence will be of a similar sort and will be for high-stakes purposes.
- Low-stakes tasks can be done in class as seminar activities. For example, students come to class with a one-page plan of a paper, which is then reviewed by two peers.
- Formative assessment is valuable in its own right. A recent review concluded that formative assessment improves learning; if best formative assessment practices were adopted in mathematics it would raise 'average' countries such as England and the USA into the top five. The effect size of 0.7 is '... amongst the largest ever recorded for educational interventions' (Black and Wiliam 1998: 61).

The claim is that alternatives to the measurement model of assessment are available for summative and formative purposes, although the costs of maximising reliability mean that there is much to be said for using them for low-stakes formative purposes.

How does this come together in an approach to the assessment of employability? We suggest that teams look at programme specifications and put the learning outcomes into one of three groups:

- Those that can be readily assessed for high-stakes purposes - recall of information, routine application of formulae and procedures.
- Those that, for a variety of practical, theoretical and ethical reasons, virtually defy high-stakes assessment - legitimate self-confidence, taking responsibility, willingness to learn.
- Those which can be judged in a tolerably-reliable way if sufficient time and money is invested in them - assessments of workplace competence, portfolios, performance in groups.

This is the basis of a differentiated approach to assessment.

4 Orchestrating the assessment of employability at programme level

In order to see better how employability might be assessed, we exploit this more differentiated view of assessment. Recall that some of the objections to formative assessment have just been addressed.

Biggs (2003) has been influential in his advocacy of constructively aligned curricula. The basic idea is simple and powerful: students have the best chance of learning when curriculum, learning, teaching and assessment are pointing in the same direction: when they are aligned. The 'orchestration' or 'tuning' approach described here involves making a series of small changes to a programme to enhance the contribution that assessment makes to the enhancement of student employability.

Typical moves are:

- 1 As we have just suggested, take the outcomes of learning identified in the programme specification and identify those that can readily be summatively assessed - knowledge and understanding goals are often assessed in this way. Then identify those that call out for formative assessment approaches. Re-examine the residue, making an economic judgement about the assessment arrangements that would be implied, and whether the programme can afford to warrant their achievement.
- 2 With some programmes, all of the modules that lead to the award are prescribed. Where this is not the case, the next step is to identify the combinations of modules that students most commonly take for the award: you are identifying the main pathways they take towards the award.
- 3 Once pathways are identified, approach the leaders of pathway modules and ask them to refer to the programme specification and identify, say, the three outcomes that get sustained attention in each course. They will no doubt say that their work touches upon many outcomes, but the aim here is to identify those that are most seriously addressed.
- 4 Collate the returns and, if need be, negotiate with course leaders to tune the programme for:
 - Gaps - programme outcomes that are not addressed.
 - Redundancies - outcomes that get too much assessment attention.
 - Bunching, where all the attention to an outcome is at one level and there is no obvious educational rationale for that being the case.
- 5 Now ask leaders how the assessment arrangements touch the three key module outcomes.
- 6 Collate the returns, again looking for gaps, redundancies and bunching in terms of
 - Assessment of learning outcomes - are some outcomes missed or over-addressed?
 - Task variety - are essays over-used, for example?
- 7 Again, follow this with negotiations to achieve a better orchestration of assessment tasks and the learning achievements to which modules give priority.
- 8 It is essential that those teaching on the programme know what is being addressed and where, and that the material they give students explains how the module and its learning intentions relate to the programme and its learning intentions. For example, a module handbook should state that, say, three outcomes identified in the programme specification will get sustained attention, and remind students of where they can refresh their memories of what the specification says.

- 9 Students need to be 'knowing' students - they need to know what they are supposed to be learning, how, how their achievements will be judged and for what purposes. This usually entails rewriting programme and module handbooks and ensuring that parallel guidance purposes, whether for academic or career purposes, also carry the same messages. To do this, programme teams have produce a coherent and convincing account of their programme.
- 10 Students need to learn ways of representing their achievements to employers and graduate schools.

The following sections develop the last two points.

5 'Knowing' students

Students come to class with learning histories that have shaped their beliefs about the rules of the academic game, particularly beliefs about what learning is, what teachers do and what assessment is for. Many innovative teachers have found that students resist academic practices that do not conform to those expectations, partly because they do not understand the good sense behind them. The approach to assessment and employability that has been outlined here is sufficiently distinctive to need full and repeated explanations if students are to understand, follow and appreciate the new rules of the assessment game. It is necessary to explain at least three things very clearly:

- 1 Why there is such an emphasis on formative assessment.
- 2 Why students should expect to undertake peer and self-assessment. Formative assessment works well when it creates thoughtful feedback on improving performance, especially when feedback is related to assessment criteria that are known, understood and used. The practices of judgement learned through an active engagement in peer- and self-assessment contribute to student employability and are a basis for self-regulation and life-long learning.
- 3 That formative assessment will not work unless students and teachers take it seriously. Teachers might want to reinforce the principle by requiring students to provide evidence that they contributed criteria-related feedback to others on a specified number of occasions during the course.

These explanations should go in the course handbook and, ideally, be closely related to the course assessment plan.

Many students will resist attempts to involve them in novel practices - for example, self and peer-assessment: some because they lack confidence and dislike the uncertainty that comes from unfamiliar practices, and others because feel that they have paid a great deal to be taught and expect the tutor to do the marking and not shuck it off on to other students.

They are least likely to be upset by the idea of peer- and self-assessment if they are introduced to it in Year 1, understand the purposes and benefits, and see others taking self or peer-assessment for granted. Yet it takes persistence and a coherent curriculum to form the learning communities and cultures that embrace new approaches to assessment, teaching and learning, as Mentkowski and colleagues (2000) show. When this sustained, programme-level action is not possible, teachers may still innovate in

individual modules, while being prepared for objections from students who prefer the familiarity of established methods and are suspicious of new ones.

6 Portfolios, PDP and assessment

It is quite common in the professions to consider portfolios when judging fitness to practise, for appointment or promotion. Students or applicants will usually select from their collection of material those items that can be presented as good evidence to support their claims to the achievements that define competence or higher grade performance. Teachers in higher education are also increasingly expected to produce portfolios in support of their claims to achievement (Wright and Knight 1999) and most postgraduate programmes validated by UK Institute of Learning and Teaching in Higher Education require teaching portfolios.

David Baume (2001) has produced a briefing on portfolio assessment for the Generic Centre and its website holds a number of documents on good practice in personal development planning (PDP) and the creation of portfolios.

Portfolios are notoriously difficult to assess reliably, although Baume and Yorke (2002) describe an approach to doing so. Five sources of difficulty are:

- 1 The claims to achievement and the evidence used to support them tend to diversity. Greater convergence, which is necessary for reliable and efficient grading, requires indicators that helpfully describe and illustrate the assessors' expectations. The price is that these measures can curb students' creativity, limit flexibility and reduce students' feelings of having some ownership of the PDP process and the portfolios it produces.
- 2 Even when indicators are helpful, there will be considerable variations in the evidence presented. The variations may represent different degrees of achievement, but they will also represent different circumstances of achievement and different judgements of how best to make the claim to success.
- 3 There will always be differences in weighting between elements of claims to achievement. For example, there are some 30 elements to an English specification of teaching competence. It is unlikely that claims will treat them all equally. The more that assessors have to judge how to respond to such imbalances, the more elusive is reliability.
- 4 Portfolios tend to be long. Long documents are costly to assess. Costs multiply if grading is more complicated than pass/fail.
- 5 The reliable assessment of portfolios demands expert judges who are well-trained in using indicators in consistent ways. However, the more complex the assessment task - and portfolio assessment is as complex as it gets - the more elusive is reliability, and the higher the training and quality assurance costs.

The more that reliability is emphasised, the more assessment costs soar and the more students' freedom to develop their claims is curbed. In the context of assessment for employability, the suggestion is that portfolios should only have formative purposes. Exhibit 2 contains some notes for those wanting to use them summatively.

Exhibit 2 The summative assessment of portfolios

If you want to get reliable grades from portfolios:

- 1 Invest resources in the summative assessment so that graders can be well-trained, portfolios can be independently graded by more than one assessor, and there are resources for thoroughly resolving differences. This implies not using a lot of tutor time on other summative assessment tasks in the same course, unless the contributory judgements are just 'sufficient for progress to the next stage' or 'not ready to progress to the next stage'.
- 2 Ensure that there are clear indicators and plenty of examples of good practice, available to students and teachers. The tighter the brief, the easier it is to get reliability (but the harder it is for students to develop the claims they want to make in valid ways). However, the danger in tightening the brief is of creating an approach that students will see as a strait-jacket.
- 3 Encourage or require students to discuss their portfolio claims with each other before submission. This will clarify understanding of what is required and make reliable grading easier.
- 4 Reduce the number of decision points. 'Pass/fail' grading (one point) is cheaper than 'distinction/merit/pass/fail/non-redeemable fail'. Grading on four elements of a portfolio is cheaper than grading on 24. In all cases, detailed assessment attention might be concentrated upon borderline and failing portfolios so as to help the students to improve to an acceptable level.
- 5 Consider grading only the claims, which can be set out as a one or two thousand word preface to an annotated file of evidence. Sample the evidence for appropriateness but only look in any detail where there is cause for concern.
- 6 Look over the portfolios to ensure that they pass the threshold of adequacy but do not grade them. Set students whose portfolios are adequate a separate task, perhaps under exam conditions, that capitalises on the learning that the portfolios represent. Good portfolios should support better performance on this task than those that showed minimal effort. Those producing inadequate portfolios are not given their grades until their work is judged adequate.

Consult Baume and Yorke (2002) for an account of attempts to improve the reliability of portfolio assessment.

When used formatively, portfolio-making is treated as an opportunity for PDP. What follows is a summary of the ways in which portfolios are used developmentally in one social science department.

Students start with the programme specification, which explains the programme's learning intentions. They begin by adding to the standard list the outcomes of learning that they value and either can document on the basis of what they have done in school, in their part-time and vacation jobs, and through their leisure activities. They then review this new set of outcomes and do two things: identify the sorts of claims to achievement they can make in respect of each outcome on their lists; and identify areas for development and consider ways of doing something about them. The portfolio they create and develop throughout the programme has three main parts, described in the course handbook as:

Section 1: claimsmaking. First, there are your claims to achievement, which will be written in continuous prose, highlighting the points that you think present you

to your best advantage. Although you will inevitably refer to your cv and say something of the courses you have done, jobs you have had and qualifications gained, this section is about making claims based on those experiences and achievements...

Section 2: associating claims with evidence: The second part, which may be best presented as a table which you create and maintain in electronic form, should list your achievements - such as practical, intellectual and key skills - say a little about each and refer readers to the evidence that fleshes out the claim...

Section 3: The evidence. The third section is likely to be a box or a more sophisticated filing system containing the evidence you want to use in support of your claims...it is important that employers - and you - are quickly able to understand which claims are supported by one or more items of evidence and why. For example, you might have put a particularly good essay in your file because it shows high academic achievement, good presentational skills, ICT skill and numeracy. In which case, make sure there is a note explaining how this item is to be read as evidence of the claims you are basing upon it.

This claimsmaking enterprise rests on the programme assessment plan in that:

- Students need to be quite skilful at reflecting on their own learning and achievements if they are to appraise their attainments and plan for future learning. If this is not encouraged by programme assessment practices, students will generally be disadvantaged.
- Students need to be familiar with the programme learning indicators, to have seen examples of their use in practice and to have a good, experience-based understanding of what they mean, as expressed by the grade indicators.
- Each of the foregoing points assumes an experience - probably a substantial experience - of peer and self-assessment.
- Students need evidence of achievement, particularly in respect of those outcomes of learning that the HEI does not warrant. This means that they need to do tasks that support development in those areas and that provide feedback both on performance and also for improvement.
- There need to be plenty of tasks with formative assessment purposes in order to support development.
- Portfolio development is integral to the curriculum. That means telling students that it is an important curriculum activity, giving them guidance on creating and maintaining a portfolio, providing tutor support and guidance, creating opportunities for learning conversations around portfolios, and aligning this part of the assessment system with the HEI's academic and personal guidance systems.

This portfolio work, if well-planned, should help students to develop claims to achievements that a department does not summatively assess, help them to review all their learning, and prompt them to identify areas and opportunities for development. However, enthusiasm for progress files, portfolios, dossiers etc. has not always been shared by students. Unless students are enrolled in a programme culture that values and supports portfolios, resistance and indifference are likely to follow.

7 Assessing competence and work-based learning

Employability is often associated with competence, particularly when an employer advertises for someone with particular achievements - for example, in operating Linux software, in teaching children with special educational needs, or in post-partum care. Although there is a history of treating competence as a stable set of distinct but generic elements, researchers such as Michael Eraut (1994) have a lot to say about the degree to which it is content-specific, situationally-variable and holistic rather than an agglomeration of separate skills. As with the notion of employability itself, definitional matters have ramifications for assessment, as Figure 2 shows.

Concept of competence	Assessment implications
1 Competence as having sufficient knowledge.	Assess knowledge. Better still, assess understanding, although this is harder to do reliably.
2 Competence is being adept at problem-solving.	Assess quality of solutions to well-defined professional problems. Better still, assess quality of suggestions about ill-defined situations (problem-working, which is more authentic than problem-solving).
3 Competence as having clinical or practical skills.	Assessment of individual skills through OSCE (objective, structured clinical exam). Better still, observation of skills in authentic settings.
4 Competence is being effective and efficient in practice.	Judgement on the basis of evidence of effective and efficient practice 'in the wild'. Will include observation, peer-appraisal, appropriate performance indicators and, perhaps, portfolio claims to achievement.
5 Competence is tantamount to effective and reflective practices	As above, plus evidence of reflection, perhaps in the form of evidence of continued learning within an area of specialism.

Figure 2 Assessment implications of varying views of competence

When the stakes are high, as they are when fitness for practice is at issue, then high levels of reliability are needed. This is not always easy to achieve because it depends on repeated assessments of the elements of competence in different settings and using a variety of authentic assessment tasks. Different assessors should be involved. They should understand and use the same criteria. Their consistency should be monitored and disputes should not be settled by splitting the difference between two assessors' marks.

However, as definitions of assessment move from the first row of Figure 2 to the fifth, complexity and cost increase as well, and curriculum designers have to think in terms of programme, not module, assessment plans. Direct summative assessment of competence, as it is defined in rows 3, 4 and 5, is expensive, which is why it is so tempting to use the simpler methods listed in rows 1 and 2, even though they only give evidence about impoverished concepts of competence. The temptation is to make the easily assessable important, regardless of whether what is important is easily assessable.

We might sidestep this problem by turning high-stakes assessments of competence into coaching or formative ones. It is cheaper and appropriate where 'fuzzy' or 'soft' achievements are concerned. However, it is seldom realistic to say that workplace learning will only be assessed formatively. Alternatively, we might have high-stakes assessments but treat them as purely local verdicts, not general warrants to competence. (A series of local assessments might, over a programme, be sufficient for some generalisation about competence.) The snag is that many HE programmes need to produce warrants in the form of statements of fitness to practise, which also limits the use they can make of the cheaper options of assessing knowledge or skills proficiency. Although professional bodies are often prepared to negotiate about the interpretation of their regulations for registration, departments can often find themselves severely constrained by the rather quaint ideas about assessment held by some professional bodies. The best advice on meeting professional bodies' requirements is likely to come from subject associations and from the relevant LTSN subject centre.

When summative data are wanted, then the costs will be high. Eight contributions to tackling the provision of summative data are as follows.

- 1 Establish a programme assessment plan. The savings may not be obvious because they will stem from reduced uncertainty for all concerned.
- 2 Invest in materials that explain to students, employers, assessors and others how achievements are being understood and assessed, what competent performances will look like, and how assessors will make their judgements. This helps all concerned by reducing misunderstanding and confusion.
- 3 Make sure that students know the rules of the game, have plenty of exposure to examples of competence and follow a well-designed professional programme. It is easier to assess competence when the curriculum routinely promotes it and students know what the curriculum is doing.
- 4 Invest in coaching and assessment training for staff. The more that teachers are agreed on what would count as evidence of competence, the more efficient and effective the system. However, 'staff' in this context includes workplace assessors and those departmental colleagues who liaise with them. Not only is it expensive to train workplace assessors and often hard to get them to agree to be trained, it is also expensive to establish quality assurance systems to make sure that comparable standards are being similarly applied across a range of settings.

- 5 Aim to have few assessment decision points by, for example, preferring pass/fail judgements to percentage grades. More-than-competent performance can be appreciated without having to put numbers on it.
- 6 Where competence is established, stop summatively assessing and concentrate on other areas of concern. Again, that is no bar to giving less formal feedback to encourage a move from competence towards excellence.
- 7 Provide plenty of formative tasks that lead to fewer, sharp high-stakes tasks upon which judgements of competence are based.
- 8 Encourage a claimsmaking approach, in which learners are themselves responsible for producing evidence of achievement.

These eight suggestions comprise a systemic approach to the assessment and promotion of competence which is a model for the assessment of employability in general. There is no avoiding the fact that the assessment of competence is expensive (unless competence is defined in Figure 2, row 1 terms). For example, it is said that a major bugbear in the assessment of competence is establishing the validity of claims to achievement coming from work experience or other activities outside of higher education. Agreed. Point 4 above alludes to the costs of making sure that judgements within a programme are sound. When it comes to appraising claims made on the basis of extra curricular activity, it is common to require students to produce portfolios to support the claims and/or to viva the student. Both are expensive.

A differentiated programme-wide approach to assessment can cope with expensive elements, such as the assessment of competence and claims based on workplace learning, because the programme team can decide to use cheap assessment approaches in some modules in order to free up the resources to invest in expensive assessment practices in others.

Further advice can be found in Gray's (2001) Generic Centre paper on the assessment of work-based learning.

8 Suggestions for action

Teachers and module team leaders could:

- 1 Reconsider the balance between formative and summative assessment purposes.
- 2 Consider extending the range of assessment methods.
- 3 Network. LTSN subject centres, professional associations and other interest groups in this country and overseas are good sources of ideas that can be borrowed and customised.
- 4 Hold on to the idea that many of the assessment problems you would like to solve are either not solvable or most sensibly tackled at system level. Teachers are prone to feel guilt (Hargreaves, 1994) but this is seldom appropriate here because solutions often lie outwith their power.
- 5 Aim to extend the range of assessment methods in use and concentrate them on directly assessing a few - three or four - achievements per module.

Programme leaders could:

- 1 Make programme assessment practices a priority for departmental attention over, say, the next three years.
- 2 Review the amount of assessment on a programme, looking at the range of methods and the balance of formative and summative assessment. It is not unusual to find considerable imbalances.
- 3 Look for consultancy/evaluation help on the design and management of assessment systems. There is a place for workshops on topics of interest but there is, we suggest, a massive, unmet need for consultancy support. Educational development units, LTSN subject centres, subject and professional associations and national quality enhancement agencies, such as the LTSN Generic Centre, can all help here.
- 4 Get some programme-wide criteria in place to help thinking about assessment. Concentrate on identifying the sorts of performance associated with, say, a lower second class degree. Don't take these indicators too seriously but treat them like a 'starter culture', a way of developing conversations about what is involved in assessing learning. They can be the beginnings of a common assessment language.

9 Questions

Question. What does the assessment of employability mean for assessment practices?

Suggestion

- Using a wide range of assessment methods.
- Orchestrating assessment arrangements so that they inform us about a wide range of achievements.
- Taking a more planned approach to assessment, for example by ensuring that module practices are better integrated with the programme specification.
- Ensuring that assessment practices dovetail with learning tasks and teaching sequences.
- In short, arranging things so that students experience coherence, rather than disarray, and breadth of engagement, rather than narrowness.

Question. What strengths are there in current assessment practices?

Suggestion

The past fifteen years have seen the use of a wider range of assessment methods, which in turn has encouraged a wider range of achievements. Admirable as these developments are, they tend not to be joined-up, so student assessment experiences can be uneven. In some subject areas practices remain quite traditional, touching a narrow range of achievements.

Another strength is that students continue to take assessment seriously and are generally motivated to do well when the stakes are high.

Question. Where do current practices fail?

Suggestion

Where the range of methods is too narrow, the range of learning intentions promoted by current methods is often too limited, the workloads on teachers can be excessive and alignment with teaching and tasks is not always good. The course-programme fit may not be as close as it could be.

Current practices do not, generally, support PDP and claimsmaking, nor do they routinely create feedback to students that is couched in terms of course and programme learning indicators.

They perpetuate the unhelpful view that assessment means measurement.

Question. How do assessment practices need to evolve in order to accommodate the employability agenda?

Suggestion

The answer is implicit in the response to the last question and detailed suggestions for course and programme leaders have just been presented.

Arguably, if assessment to support employability and other complex learning intentions, the most important thing is for there to be a change of thinking - a recognition that assessment, as described here, is not what it is often assumed to be (ie 'measurement').

Question. What is going on that might help or hinder this?

Suggestion

Hindrances for teachers include innovation fatigue; the allure of research; lack of resources; lack of educational consultancy support; wariness of the term 'employability'; high-choice modular programmes; a belief that assessment=measurement; a lack of cross-departmental thinking; weak traditions of departmental leadership; league tables; confusing of employment indicators with 'employability'; the growing 'casualisation' of academic employment; and the cost of coping.

Hindrances for students are the experience of very different assessment cultures; their frequently fragmented experience of programmes; the need to do paid work; the psychological allure of playing safe; the instrumental need to get a 2:1; and, for some from non-traditional backgrounds, the strangeness of it all.

Opportunities for all include the requirement that PDP be available to all students by 2005; the beginnings of a move away from highly modularised curricula; the range of work now being done on programmes and coherence; the professionalisation of teaching, notably in the Academy for the Advancement of Learning in Higher Education; increased rewards for good teaching; and the subject-based resources, events and guidance provided by LTSN subject centres and subject associations.

Learning more

This Guide draws heavily on the 2001 pamphlet *Skills plus: assessment and employability* (www.open.ac.uk/vqportal/Skills-Plus/publications.htm). It anticipates some ideas that will be in Knight, P. and Yorke, M. (2003a) *Assessment, Learning and Employability*. Buckingham: the Society for Research in Higher Education and the Open University Press.

The Generic Centre's Assessment Pack is a useful and accessible set of booklets on assessment matters
(www.heacademy.ac.uk/resources.asp?filter_fields§ion=generic&type=some&id)

John Biggs' work on constructive alignment takes a line similar to one developed in the Skills *plus* project - Biggs, J. (2003) *Teaching for Quality Learning at University* (2nd ed). Maidenhead: Society for Research in Higher Education and Open University Press. His work has been very influential.

David Gosling and Jenny Moon (2001) give clear advice on the design and use of learning outcomes, which guide low-stakes judgements and determine high-stakes assessment - *How to Use Learning Outcomes and Assessment Criteria*. London: Southern England Consortium for Credit Accumulation and Transfer.

For a useful guide to common assessment practices, see Hounsell, D., McCulloch, M. and Scott, M. (Eds.) (1996) *The ASSHE Inventory* (Edinburgh: University of Edinburgh and Napier University) and at www.heacademy.ac.uk/asshe/project.asp Also Brown, G., Bull, J. and Pendlebury, M. (1997) *Assessing Student Learning in Higher Education*. London: Routledge.

Two further sources are as follows:

On assessment-as-learning: Mentkowski, M. and associates, (2000) *Learning that Lasts: integrating learning development and performance in college and beyond*. San Francisco: Jossey-Bass.

On self-assessment: Boud, D. (1995) *Enhancing Learning through Self-assessment*, London: Kogan Page.

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Baume, D. (2001) the assessment of portfolios, accessed via www.heacademy.ac.uk/resources.asp?process=full_record§ion=generic&id=6

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Harvey, L., Moon, S. and Geall, V with Bower, R., 1997, *Graduates' Work: Organisation change and students' attributes*. Birmingham, Centre for Research into Quality (CRQ) and Association of Graduate Recruiters (AGR).

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Knight, P. T. and Yorke, M. (2003b) *Learning, Curriculum and Employability in Higher Education*. London: Routledge/Falmer.

Mentkowski M & Associates (2000) *Learning that lasts: integrating learning, development, and performance in college and beyond*. San Francisco: Jossey-Bass.

Wright, W.A., and Knight, P. T. with Pomerleau, N. (1999) Portfolio people: teaching and learning dossiers and the future of higher education, *Innovative Higher Education*, 24(2), 89-102.

Personal development planning with tutor and peer student mentoring: interim report of an experiment in implementation (warts and all)

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Introduction

The School of Chemistry made the decision to introduce personal development planning (PDP) to undergraduate students in the academic year 2002-03. The aim is that by 2005, when all higher education institutions are required to implement PDP as a result of recommendations of the Dearing Review, an established system will be in place. The School of Chemistry is using the Undergraduate Skills Record (USR) produced by the Royal Society of Chemistry (RSC). It is available as hard copy or can be downloaded from the website for students to complete electronically. To implement PDP, the School of Chemistry proposed a cascaded mentoring approach using tutor and peer student mentoring and this has been developed on a pilot scale.

Royal Society of Chemistry Undergraduate Skills Record

Both printed and electronic versions (www.rsc.org/ugskills) of the RSC's USR are available. The first section is for recording personal details, qualifications, work experience, as well as awareness of departmental and university-wide facilities and services. The main section, Skills Audit, is for the students to complete throughout their course, and guides them through assessment, reflection and the planning of different skill development. The final section is a Skills Profile where the student has the opportunity to generate a summary of their skills development using examples highlighted in the Skills Audit section.

The Skills Audit is broken down into nine skills:

- planning and organisation
- study skills
- handling information
- communication skills
- working with others
- scientific/practical skills
- improving learning and performance
- information and communications technology skills, problem solving.

By answering a series of questions on each skill, the students rate themselves from the Ability Ratings given, rate themselves overall and then summarise the reasons for this scoring, including evidence to support it. After reflection, they are asked to set themselves a realistic development target for the next phase. Guidance and examples are given to help students fill the Skills Audit in appropriately.

Although the USR is designed to be of particular benefit to students working towards a degree in chemistry, the Skills Audit is general enough to be appropriate to students of most scientific disciplines.

Method

The RSC's USR was made available to first and third year students. These two groups were targeted for the following reasons.

- It would be difficult to support and mentor students from all years at the same time.
- First year students will have the opportunity to build up a complete profile over their entire university career.
- As mentor, I was already known to about half the first year class through tutoring in the previous semester.
- Third year students were keen to be involved in supporting the first year chemistry students in a number of areas and this fitted in well with their enthusiasm.
- We knew the third year students well and they would be able to give an honest evaluation of the usefulness of the forms. The benefits were clearer to them as many had either prepared for industrial placement interviews or were beginning to focus on career interviews in the near future.
- Third year students would be available the following year to support the introduction of PDP to a new first year class.

In week 8, semester 1, all participating students were given an introductory talk, received a printed copy of the USR and were made aware of the availability of the electronic version.

Proposed time course of the project

Semester 1

Week 8	Launch project
Week 9-10	Individual discussions with third year students who will fill out their USRs retrospectively
Week 11-12	Individual discussions with first year students

Semester 2

Week 5-6	Individual discussions with first year students who should have started to complete their USRs
Week 7-8	Individual discussions with third year students. Introduce the concept of mentoring
Week 9-10	Individual discussions between third year and first year students to pass on the perceived benefits of the process and assist with completing first year USRs

Staff involvement

All staff received a memo outlining details of the project, the benefits to students and the role of the teaching staff in providing feedback to students.

- They were asked to be aware that assessments would, in future be used in students' PDPs and therefore to take this into account when providing assessments of work.
- The USR provides a photocopiable page where students may summarise relevant parts of their Skills Audit and present it to an appropriate member of staff to comment on. Staff were therefore asked to familiarise themselves with the USR and what might be required.
- For feedback on practical skills, it was decided that laboratory demonstrators were best placed to give this but it was up to the member of staff in charge of the lab to brief demonstrators.

Implementation

Third year students

There were 30 students in this group. Of these, 22 completed the USR and made time to discuss and evaluate its usefulness.

The main problem encountered was the time course. For the project to develop, the students needed to complete the USR and be confident and familiar with it to be of assistance to first year students. Due to pressures of work towards the end of semester 1, only one student had completed the USR on time and the remaining members of the class asked if they could complete the USRs over the Christmas vacation. However, the reality of the situation was that only when individual appointments were made for the student to come and discuss the USR with myself did the USR get completed.

As a result of this rescheduling, students had one, rather than two individual interviews. The interviews were therefore longer than anticipated (on average 20 minutes), to allow time to discuss and evaluate the USR and develop a strategy for mentoring. These were spread out over several weeks, in order to work round students' other class commitments.

Not all students wished to or would have been appropriate for mentoring but a sizeable number were enthusiastic and willing. This group was coordinated by one student, who liaised directly with myself.

First year students

There were 64 students in this group. The focus was on students whose subject intention was chemistry because it would be easier to support them in future years. A small number, however, had other subject intentions but were keen to participate and continue to use the USR, because of the obvious benefits.

Once interviews with the third year students were underway, interviews with this group were set up. As all first students are in the labs at least once a week, it seemed appropriate to conduct interviews there. Because of knock-on effects of the third year timetable change, a new interview timetable was drawn up for this group.

Semester 2

Week 1	All students received an email reminding them to start filling in their USR and explaining that interviews would commence the following week.
Week 2	The first group of students were seen individually by myself, the benefits of keeping an USR were discussed and a brief explanation given on how best to approach it. They were then asked to fill in the USR over the following week and bring it to the lab, so that any questions and difficulties could be addressed. A reminder slip, with date, was also given.
Week 3	A second group was given an introductory interview, as in week 2. The first group had the opportunity to go through their USR with me and discuss any concerns or uncertainties.
Week 3-5	The third year mentors went into the laboratories at a different time to myself and spoke to the students individually. They emphasised how difficult it was to fill in the USR retrospectively and the advantages there were in completing it from first year.
Week 4-8	The process was repeated until all students had been seen. The interviews became spread out because of absence, forgetfulness and some unwillingness. Some persistence was required but it produced results in the end.

Student mentors

Mentors went into the laboratories in small groups and each spoke to a number of students on an individual basis. The discussion areas they were asked to focus on were:

- general information about the chemistry course, particularly with respect to skills development
- why keeping a record of their skills development has been/would have been useful
- the problems they had filling in the USR retrospectively
- how they filled in the USR, the time involved, sources of evidence for skills.

Any particular points or problems raised were fed back to myself.

Outcomes

First year students

- Some students were reluctant to fill in the USR because of bad experiences at school with the National Record of Achievement (NRA). All in this category admitted that the USR was much more straightforward and less time-consuming than the NRA.
- Many wanted to know if completing the USR was compulsory. As the answer to this was 'no', it was important to reinforce the benefits and to discuss individual situations.

- A number of students were not very confident about filling in the USR. Some just needed reassurance - checking and commenting on their completed record. Others, however, found it difficult to self-assess primarily because 'someone was going to look at it'. This raised the important issue of ownership.
- The student mentoring running in parallel seems to have been beneficial. A number of first year students commented on points raised by the third year students. At the very least, it kept the momentum up and kept USRs high profile throughout the semester.

In summary, the combined mentoring efforts appear to have been worthwhile because as the semester progressed, so did the general acceptance that the USR should be completed. Ultimately, only six students had not completed the USR by the end of semester 2.

Third year students

- Of those who participated, many saw it as an unnecessary exercise at this stage in their studies. Resistance was largely due to an existing awareness of skills development; many students kept a record of their own making and the MChem. Students had recently prepared their CVs for industrial placement applications. The majority felt it would have been much more useful in first and second years.
- A major concern was asking students to carry out mentoring work on top of an already heavy workload. Time was always an issue.
- Mentors required more guidance than was anticipated at the outset. They were comfortable with the system devised. A 'buddy' system would have taken more time and organisation and seemed more appropriate as a longer-term strategy, introduced in semester 1.

In summary, the majority of third year students did not find the introduction of an USR at their stage appropriate, but appreciated it was necessary in order to familiarise themselves with the system, before mentoring the junior class. Although many students were willing to be mentors, some found the timescale of the project too narrow and were concerned about their own workload.

Expanding the project

School of Chemistry

The pilot scheme should make the expansion of PDP within the School of Chemistry relatively straightforward. It has, however, highlighted a number of key issues that need consideration.

- The first year of a student mentoring system is the most difficult because senior students need time to familiarise themselves with all aspects of the adopted scheme. For 2003-04 onwards, there will be groups of senior students familiar with the USR and it should therefore be easier to organise a more rigorous mentoring system.
- The issue of ownership is clearly a difficult one. We have taken the view that the USR is the students' property, for them to complete for their own benefit. By doing this, we may be letting some students down by not giving proper guidance and direction. However, with a good staff/student mentoring team this may not be a problem.

- The student mentors themselves need direction, support and encouragement and to this end, staff involvement will be essential.
- The School of Chemistry offer many opportunities for skills development from first year onwards (creating posters, newspaper articles, presentations, workshops on communications and interview skills), in addition to the skills learned in formal teaching and practical classes. For the junior classes, it is worthwhile highlighting these opportunities and it takes little effort on the part of staff to give appropriate feedback on class and project work, which can be used directly as 'evidence' of skills development. It is therefore important that all members of staff are aware that students are building a personal development file and assist, as appropriate.
- The timing of the introduction of the USR is, at least in the short term, something of a problem. Due to the timing and requirements for different chemistry modules, many students who received the USR in semester 1, did not continue with chemistry in semester 2 and likewise, students doing chemistry in semester 2 did not necessarily receive the USR in semester 1. It is very doubtful if students with non-chemistry intentions will continue to use the USR, until other schools implement PDP. Students with chemistry intentions who are not required to do the semester 1 Foundation course may not receive any mentoring until semester 2.

University-wide

As highlighted above, until the whole university is involved in undergraduate PDP, there will be problems with giving support and feedback to students. However, as the whole university comes on-board, additional problems arise. There will inevitably be many different PDP record books in use throughout the university. With the modular system of courses, decisions on who issues the record books and when, who mentors students, etc will be required to implement the scheme effectively.

Conclusion

PDP has been introduced successfully to the first year chemistry students. Senior students are now familiar with the system and assisted in the mentoring of first year students. A number of these students will be available to help introduce PDP to new students in session 2003-04. However, for the scheme to continue effectively, student mentors will have to be organised and supported and a reasonably high level of staff input will still be needed, at least in the short term. In addition, the second year students will need reminding at some point during the session to fill in their records, with perhaps some mentoring, but hopefully not at the level required in the first year. Direct-entry second year students should also be identified early in semester 1 and introduced to PDP. Until PDP is introduced university-wide, there will be difficulties in implementing an effective and robust system at first year level.

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Personal development planning with student volunteers in support work

Chris Lusk, Student Support Services, University of St Andrews

Synopsis

Student volunteers working within a university support service have used Personal Development Plans (PDPs) as an informal assessment of the experience and analysis of the skills they are developing in their work. Students are supervised by a full-time coordinator who assists them in identifying tasks with opportunities for them to develop their skills. However, the students themselves compile the PDP and it is the process of self-reflection and one to one identification of what they have achieved which is seen as the greatest advantage.

Many of the students who volunteer and train for this volunteer group have a long-term target of gaining postgraduate qualifications and training for employment in one of the caring professions. The experience they gain from working within the support network allows them to provide evidence of prior training and experience in this area of work already. The use of the PDP, plus the development of summary information incorporated into a reference from the department on graduation, has allowed past students to gain entry to the courses of their choice.

The disadvantage of the PDP process is the difficulty of selling the concept to students who remain unconvinced of its worth and are therefore reluctant to participate if it is not mandatory. It also requires a drive from staff convinced of its worth and can easily slip into non-usage if staff are stretched elsewhere in their work.

Context

The University of St Andrews has an integrated central unit for support for students, The Student Support Service. A team of 25 professional and administrative staff serve the 6,500 student population in a geographical area with limited welfare, counselling and health resources provided in the local hinterland. The service therefore aims to provide an all-round service on a range of issues and covering emotional and practical support to students themselves and pastoral care staff, 24 hours a day, seven days a week during term time.

Assisting this team of staff is a team of 30-40 trained student volunteers self-named the Supnet (support network). These students are selected (from application through voluntary training and interviews) from a substantial number of applicants and are then trained over the first year in aspects of social and/or welfare skills (eg anti-discriminatory practice, confidentiality, boundaries) and in specific areas of support work, eg eating disorders, ME, health awareness, depression etc. Some of this training is provided in-house, some of it involves sending the 'Supnetter' to national services. All training subsequent to selection is mandatory.

Supnet activities

Once trained, the Supnetter operates for the department for the remaining three years. They run a variety of activities for students, from leading teams of volunteers

for orientation, to providing first aid cover at student balls and social events. They offer one to one support for students with disabilities, students experiencing emotional crises and they organise support self help groups for students suffering from conditions such as ME, depression and eating disorders or with unexpected situations arising such as bereavement or an unplanned pregnancy.

All Supnetters attend mandatory training as described, attend group and single supervision sessions and are debriefed after each round of activities by a full-time Supnet Co-ordinator - a full time member of professional staff who acts as a liaison for referrals from other members of Student Support staff or University pastoral staff.

History

In 1995, the Supnet was established to offer some extra peer support for students. By 1997, the numbers had risen to 25, students joined intermittently and took ad hoc training as it was possible to timetable within their personal diaries and that of the staff within the unit. Commitment was intermittent with student attendance unreliable. By 1997, the powerful contribution which had been demonstrated by some committed Supnetters had demonstrated a role here which was thought to be worth developing. However, in order to encourage worth in the project a new beginning was planned.

In 1997, a clean sweep allowed the project to start from scratch again. A full time coordinator was hired with funding part-time from Lloyds TSB Trust and matched by the University central funds. Recruitment criteria were updated and strengthened with unit demands on time commitment heightened. Students were asked to come for training (voluntary at that stage) and were offered a series of interviews. The interviewers stuck rigidly to the criteria decided and turned away people who did not have the required approach or experience. Academic references and character references were required. The numbers took some time to build up but by 1998 we had 30 Supnetters appointed.

These Supnetters have demonstrated the worth of the project by their commitment since and work, on average, 10 hours per week for the unit for the three years following their recruitment. In return, they have each been offered a PDP which they can fill in themselves throughout their training and three years of working within the group. The Supnet Co-ordinator helps them maintain their PDP and when gaps in skill development are identified, opportunities to address this are created.

The PDP has offered evidence to employers or future educational institutions on the skills obtained by the student. The personal reference which refers to extracts of the PDP has proved its worth and to date all students using this system have obtained entry to their desired course of action.

The 10 PDP key skills (Mason, Collier et al)**Presentation skills**

The ability to give a structured presentation to an audience utilising effectively audio/visual aids and successfully demonstrating the ability to build up a rapport with an audience.

Analytical skills

The ability to collect, collate, analyse, adapt and classify data and to be able to use your results effectively.

Creative thinking

The ability to develop strategies to solve complex problems requiring initiative, imagination and flexibility.

Teamwork

The ability to work with others effectively; to exchange ideas as well as giving and receiving feedback.

Time management

The ability to keep to schedules, to structure your own time and to prioritise your workload. The ability to complete work to a deadline.

Communication (written and verbal)

The ability to express ideas and be understood through a variety of communication media, including public speaking, talking in small groups or one to one, presentations, letter writing, reports and telephone.

Leadership

The ability to organise, motivate and lead others, to take decisions and to listen to all relevant opinions before reaching a decision. The ability to accept and handle responsibility well. The leader effectively pulls a team together to give it direction and purpose. A good leader enables the group to work through differences and become high performing, well able to do more work than a group of individuals on their own.

Interpersonal skills

The ability to listen and react to the needs of others. The ability to initiate relationships and to build a rapport with a variety of people.

Practical skills

The ability to operate machinery safely, to be computer and numerically literate as well as showing competence in managing own financial affairs.

Self reflection

Last but by no means least, the ability to reflect on your experiences and learn from them is a skill which will benefit you greatly throughout your life.

Process

The student, having undertaken an activity, will fill in a Skill Development Sheet.

Skill Development Sheet - example (Collier 2000)

Project Eating Disorder group coordination **Date** 6 April 2004

Main purpose/specific challenge ensuring safe space for participants to meet, raise concerns and offer mutual support to each other.

Main activities engaged in organising the EDA group throughout event, publicity, room booking, contacting student referrals by phone, organising speaker (contacting national network), teas/coffees, summary handouts by Counsellors, feedback forms, presenting speaker on night.

Time commitment 9 hours over 3 weeks. 3 hours on the night. 2 hours post event.

Skills involved Leadership, creative thinking, teamwork, time management, communication, practical skills.

Evaluation of success

Communication - I don't like presenting. Presentation skills need work - I don't like it because I don't think I'm good at it. I waffle - I stammer. I also prefer to phone than do face to face when dealing with stroppy hall-keepers.

Feedback said that event was a success - only small numbers. but quality was good and some of our students who were in most distress last week really said they gained from it. Time management was magnificent! The talks went off to the second!

At the end of each month, the Supnetter will go for a debriefing session with the Supnet Co-ordinator. At this session they will discuss the activities they have undertaken. They will use the PDP as a guide for identifying key skills developed and will update the Skills Development Sheet. They will also identify areas where development is required or where strategies to get round a problem have been identified.

All the development sheets are summarised each year into an annual Skills Summary itemising time commitment, areas of strength and weakness, areas requiring development.

At the end of the Supnetter's time, the three Skills Summaries will be used by the Director of the Unit to draw together a personal reference for the Supnetter for further training or employment.

The reference

The reference, at the end of the day, provides detailed information on the Supnetter's involvement in the unit. The length of commitment (including hours) is documented; training completed satisfactorily (eg counselling skills, mental health issues, drug and alcohol awareness.) Examples of activity are included (organising welfare publicity,

managing small self-help group for depression, helping run our first year orientation events and is a valued team leader in our crisis management team providing first aid at balls).

Personal recommendations noted in the PDP might be included.

Her commitment and trustworthy approach have been commented upon by professional contacts (Warden and local GP).

As part of her learning while carrying out these tasks, [Name] has completed a PDP, a copy of which she will supply to you upon request. This identifies the categories of areas, which she has given thought to developing through her time with us.

By examining this PDP, you will note that [Name] has experience in giving structured presentations in public, organising team members and leading projects with creativity and motivation. She has used self-reflection on a continuous basis to analyse her motives, aims and targets, and she has had to account to us for her decisions - with much success.

The timing of the dates in the PDP will emphasise her ability to keep to deadlines with serious commitment once targets are identified.

Not all is perfect - the impression is given of a realistic self-assessment of capabilities.

The self-reflective element of the PDP has identified some areas where [Name] would wish to develop further, eg when making public presentations, her verbal and written work is excellent but she requires further experience in the use of technological visual aids such as Microsoft PowerPoint. [Name's] enthusiasm and adaptability would make the opportunity to learn the only requirement here.

Advantages

The obvious advantages are identifying skills in a focused format allowing for a concise assessment by future agencies/employers.

At the time, however, there is a great advantage in the process. These students are developing self-reflective skills which are difficult to replicate in training. They are also supported by their focused once a month debriefing session. Feedback from the students was that they found the one to one session on the PDP with their Supnet Co-ordinator a hugely satisfying experience with them identifying their gains and crediting themselves with work achieved. The confidence they gained from this was described by them as invaluable.

Difficulties

Although ultimately rewarding, this scheme is intensive in terms of staff time and commitment to manage. If a member of staff coordinating it is not 100 per cent behind the project, the momentum required to maintain it slows.

The advantages of the PDP tend to be appreciated retrospectively. At the time, and certainly in advance, it is difficult to convince students that there is anything to be

gained from this. Some students with prior school experience of Record of Achievement were reluctant to re-enter the process having found the first disillusioning.

Since 2000, the numbers of students participating in Supnet has increased and, through word of mouth, students see it as a challenging and exciting group of people to join. However, the numbers of students filling in a PDP has declined since we made it voluntary. As students develop and become more involved emotionally with the work they occasionally neglect, forget or deliberately omit to complete the recording process, favouring instead, to experience the moment and grow and develop from that alone.

At this point in time we have very few students filling in a PDP - a fact rued by the ex-Supnetters who visit and try to convince the new ones that there 'really is so much to be gained' in such a process. When it worked best at its peak, the PDP system was supported by three members of staff - as part of their roles. This, unfortunately, would allow some to see it as resource intensive and a luxury.

In defence of its operation, at its peak, some students were attracted to join Supnet on account of the opportunity to complete a PDP. This, it could be argued, has some disadvantages in selectors ensuring the recruited have an appropriate motivation. However, it was accepted within the staff team that the additional use of the PDP in reference format, with links to the original document, was a valuable tool for ensuring entry into future work or the next stage of training while at the same time developing the self analytical skills required to offer added protection that the team members were developing professional conduct in their work.

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Assessment of personal transferable skills - Post workshop report

Dr Colin Mason, Director of Learning and Teaching Development, University of St Andrews

Introduction

Colleagues were reminded that the workshop was designed to explore theoretical frameworks underpinning the very nature of transferable skills and how these were being assessed in different contexts in different institutions across the UK. Further, views expressed were likely to be contradictory but if the Scottish sector was to derive useful lessons in an endeavour to develop a strategic vision of innovative approaches to assessment in higher education then we should be open to such diversity and welcome challenges to our own assumptions and prejudices. The whole group were reminded that this was particularly important in working in the four breakout sessions during the afternoon, after the presentation of all keynote and case study presentations.

Keynote and case study presentations

Assessment of personal transferable skills - models and approaches

Peter Knight addressed the title of this conference head on by querying the very nature of the key words involved in the phrase (assessment of) personal transferable skills, with which he feels there is some inherent ambiguity. He explored in some detail the nature of 'skills' and, in his view, the more useful set of attributes that underlies developing students employability. The two significant challenges posed by Peter's thesis were:

- the assessment of complex, high order intellectual capacities (analysis, evaluation, synthesis) and employability skills, in which validity and consistency or reliability are sometimes trade-offs, necessitates a major shift towards predominantly formative assessment of such activities designed to foster their development in students and
- that there is a need to re-examine programme-level assessment, moving away from unconnected module-based, predominantly summative assessment practices to more integrated developmental and strategic, formative assessment practices.

These two ideas alone (among many others) provided the workshop with a provocative, engaging challenge for all participants, and indeed none more so than future speakers presenting either keynote addresses or case histories.

Graham Nicholson presented the case for an explicitly-identified credit-bearing module that facilitated the development of personal transferable skills. The case for making explicit the learning outcomes and giving the unit of study credit weighting were emphasised as a key motivational tool to ensure students engaged. A model developed at the University of Stirling (Career Planning module) and upon which he University of Dundee would be building comprised credit-weighted assessment of various components (job study, CV, application, presentation, interview, action plan).

Jean Gowans and Colin Mason presented a case for an alternative approach in which transferable skills are assessed informally, and do not carry credit. Jean Gowans of the Careers Advisory Service at the University of St Andrews, described an informally assessed, Career Development programme that is attended voluntarily by students, who are awarded a certificate, approved by PriceWaterhouse. Colin Mason presented a further case study involving contract research staff at the University of St Andrews who attend a one-day career development course and are engaged in making both pre and post course self-assessments of a range of their own transferable skills. Statistically significant shifts in scores awarded indicate development in a combination of both their awareness of and actual skills, particularly in articulating their (self-judged, albeit) strengths and weaknesses at interview.

Alternate ways of representing learning, including personal development planning

Rob Ward, Director of the Centre for Recording Achievement (CRA), provided a summary of how seeming incompatibilities of the higher education summative assessment system for representing academic achievements and personal learning can be circumnavigated. He got everyone thinking by presenting a scenario where all records of previous achievements for everyone at the workshop had been lost/destroyed and we were asked to present our own case for future employment. The introduction of progress files, that comprise both a transcript, preferably that conforms to an agreed presentational format, and a way for students to represent their own personal, academic and career development through a personal and professional development planning (PDP) process, has been proposed to offer a representational route that is both more informative and accurate. Information was presented about how the CRA is working with the new Higher Education Academy to promote this, particularly focusing on the potential for recording data using e-portfolios.

Professor David Cole-Hamilton presented the case for the assessment of transferable skills through an integrated approach within the chemistry curriculum at the University of St Andrews. Further, he summarised an ongoing pilot project in the School of Chemistry for implementing both tutor and student mentor-supported personal development planning using both paper-based and electronic resources devised by the Royal Society of Chemistry. He, Fiona Gray and other colleagues are using a tailored system with first year students and third and fourth year student mentors.

Another example of engaging students in identifying transferable skills and the PDP process was provided by the final case study presented by Chris Lusk, Director of Student Support Services at the University of St Andrews. An informal route for acquiring transferable skills is afforded by students who volunteer as part of a network of peer support for their colleagues and engage with personal development planning as a means of recording their experiences. These activities are completely extra-curricular and are both self-assessed and then ultimately tutor assessed informally when provision of a reference is made for students wishing to pursue further related employment. This reference is informed by student-authorised consultation with PDP records.

Breakout discussion groups

The afternoon breakout groups provided an opportunity for a lively and wide ranging discussion and exchange of views and ideas between representatives from a range of institutions and different disciplines. The notes from each breakout discussion group are presented in slightly edited format and an overall summary is presented at the end.

Assessing personal transferable skills

It was thought imperative that personal transferable skills should be made explicit and embedded in the curriculum and be made clear to students. There is a need for unambiguous language. Students need to be able to translate in terms of their self-presentation in context and a frame of reference. It was also felt that this should be a process throughout a degree programme and should not be seen by students as a single moment or event or as 'another' assessment. The group agreed that the development of transferable skills is a process that students must engage with and they must understand the importance of their own skills, why critical reflection is important and the notion of professionalism. There is a need to change the culture typified by the just 'what have I to do to pass' mentality. Inevitably, this turned the debate to the quality of learning and formative feedback. Group members outlined examples of good practice. Many of these were small things that lecturers could build into their everyday teaching for example a short structured reflection exercise at the end of a class. Flexibility must be built in to enable appropriate skills and attributes to be developed. The student is central and must take ownership of the process. This is not something that can be imposed on the student but must be driven by their understanding and hence need for and value of recording or being explicitly aware of their strengths and weaknesses. Students need to know how and what tools and resources they can use to make developmental changes. The content must be relevant to both their stage and the programme of study.

Discipline differences

Employability skills are inherent in some disciplines. One example given by a delegate was in design, where it was thought best to draw attention to these skills but not reasonable to assess them separately. However, it was strongly agreed that all institutions should be allowed to develop appropriate routes or pathways and tools for their particular students.

Assessment - Overall it was agreed this was not essential but that some strategic thinking was necessary for determining what might be the 'carrot' for students to sit down and record their skills and if this should be compulsory, but not graded, to ensure that it is done. Further, student numbers gave rise to issues and problems.

Resources - it was agreed that staff had a role to be the catalyst and facilitator. It was noted that some staff may need further support and development themselves to appreciate the importance of their role in this process. Learning from models in different disciplines particularly in vocational and non-vocational programmes might be very useful and exemplars of good practice should be shared.

Conclusion

It is most important to facilitate individuality within different universities and that a 'one size fits all' approach was not appropriate. However, the exchange of ideas and good practice across institutions as well as interdisciplinary and faculty discussion were valuable. Engaging the student was imperative and that the process of the development of their skills and attributes should be ongoing as an integral part of their degree programme.

Institutional approaches to PDP

- Institutions do not currently have policies for PDP, however there has been recognition that a 'one size fits all' will not be appropriate.
- Many professional/vocational disciplines have been implementing PDP for some time. Institutional approaches need to be fully inclusive and should not generate further work and/or replication.
- Where possible institutions are seeking to enhance existing programme/school level activities rather than developing entirely new approaches to incorporate PDP.
- Portfolio generation (owned by the student), supported by personal tutors and academic programme elements appears to be the overall approach, frequently in the form of an online portfolio supported in an institutional virtual learning environment.
- Student mentoring schemes are perceived to add value to PDP, making good use of an under-utilised resource and building upon the strengths of peer tutoring.

Issues

- The need to provide equal opportunities for engaging with PDP are of concern since many models could be, potentially, discriminatory and/or exclusive. Will all elements of schemes be available to all students? When will this be made available and in what format? Students' lives outside university may restrict their ability to engage with co-curricular activities that frequently contribute to PDP eg volunteering. How will this be catered for?
- PDP will be a voluntary activity hence there may be some issues relating to promoting student engagement. It will not always be appropriate or possible to provide credit for such activity within programmes. How will the status/value of this activity be promoted?
- Students' reflective abilities do not necessarily translate into their practice, which is particularly relevant for some disciplines.
- PDP is frequently perceived to be a further burden for staff.
- The value of PDP may be undermined if it is seen as an 'add-on' rather than an integral part of a student's university experience.
- The issue of whether PDP relates to employability or more broadly to 'graduateness' needs to be clarified.

Approaches

- Making PDP an inherent part of academic programmes (in the same way that transferable skills are now built into programmes).
- Build on existing good practice, making PDP elements of programmes more explicit.
- Provide support for, and opportunities for practice of, reflective capabilities.
- Place emphasis on the developmental element of PDP rather than the personal in order to generate 'buy-in' from academic staff.
- Partnership approaches are required in order to make best use of available expertise within support units and academic departments. Importantly, PDP should not be perceived as the sole domain of careers.
- It will be important to provide a number of alternative approaches to facilitating and supporting PDP, in order to meet the needs of a diverse student body.
- There is a need to link reflection to feedforward, preventing it from becoming a circular activity that looks backwards.
- The value of PDP needs to be made clear to both staff and students - this may become more applicable to staff as they are required to undertake PDP for gaining and retaining good standing with a professional body for learning and teaching (Higher Education Academy).
- There is a need to tap into the co-curriculum (moving away from perceptions that this constitutes extra-curricular activity). Institutions may consider offering a broader range of opportunities. There will be a need to facilitate student engagement with the university community, however, particularly in light of recent research which indicates that widening participation students do not engage with the co-curriculum as extensively as more traditional students.
- PDP needs to be portrayed as the 'glue' which links together experiences gained within various contexts, enabling them to be built upon and translated to new contexts (as required, for example, by employers).
- PDP is a lifelong activity and needs to be linked into the lifelong learning agenda.
- If PDP is to be effective in supporting the development of student employability then universities will need to consider how their values relate to those of employers, in order to ensure that students value elements of their university experience that will benefit them in gaining employment.
- In order to enable students to develop their skills of reflection and to encourage them to consider both successes and failures, they need to 'control' access to their reflective accounts. Students should be able to select which elements of their reflective accounts they wish to make public, particularly for the purposes of assessment.
- PDP needs to be fully inclusive of personal, career and academic development, rather than focusing too prescriptively on employability.

How are skills development and/or training opportunities within the curriculum provided in your institution?

The experience of one member of the group on skills assessment in nursing at The Robert Gordon University was described.

- All skill outcomes are now assessed in the workplace and no longer in simulated conditions in the university; formative assessment of skills is still done in university simulations.
- Getting enough mentors for the students is a problem. Training is given.
- Outcomes to be assessed now include more generic ones with specific content outcomes. There was a challenge here (successfully overcome) of getting all staff to accept that.

General issues

Modularity of programmes

- This has led to problems with developing a cohesive assessment strategy for the development and assessment of transferable skills, particularly for programmes that are multidisciplinary and taught by staff members from several departments/schools or even faculties such as those students undertaking joint degrees.
- Modularity also sometimes results in students being assessed several times (over assessment) in one skill and not in another depending on their choice/pattern of modules.

Staff development issues: How do we engage academic staff?

- It is vital to engage all the academic staff involved in the delivery of PDP and assessing personal transferable skills. Students are often turned off once some staff are seen to show scepticism.
- Preparation for academics is as important as it is for students. Many academics feel uncomfortable with teaching and assessing transferable skills, partly because they have not been trained or assessed in them themselves and indeed are sometimes unaware that they actually have all these skills. Most will never have done PDP themselves, and many are not used to doing or encouraging reflection and self-assessment.
- Support staff (eg library, information technology, careers, educational development) could work with academics first, and then help in the training and assessment of the students alongside academics.
- Institutions need to provide ways of filling the gaps that academics feel unable to cover themselves.
- Line managers and senior university staff need to be involved, both because of the resource issues but also to encourage everyone's commitment.

Use of students' expertise: we need to tap into this

- Students can learn more from student-led than lecturer-led learning, but this is much easier with small numbers of students.
- Involving students in supporting/teaching/assessing other students often has unexpected and highly beneficial outcomes, particularly in the skills area.

- One member reported on their successful student mentoring project in the Accounting and Business Finance Department at the University of Dundee in which year 3 students, in twos or threes, had mentored groups of six year 1 students for the first six weeks of their first year. The year 3 students had got at least as much out of it as the first years, and were motivated to take part by the need for evidence of skills for their CVs. A paper describing this project is available at http://cbs1.gcal.ac.uk/lts/AFox_LStevenson_PeerMent.htm
- Students often need help in interpreting incidents in their workplace experiences, and using them to learn about and develop their skills.

How do your course and institution use undergraduate students' research projects/dissertations to develop generic skills in the curriculum?

Projects usually involve teaching learning and practice in using the literature, abstracting and synthesising data, the preparation of a substantial written report, teamwork, in many cases the learning of new practical skills, giving at least one oral presentation, and in some cases preparing and presenting a poster.

The discussion revolved around the following themes.

- Whether research projects should be scheduled over one semester (short and fat) or over a whole year (long and thin). Preferences for the latter were expressed in terms of the benefits to students' learning. If the former approach was followed, suggestions were made to schedule the literature review into the previous semester, in order for students to most benefit from the task.
- A university's approach to PDP as a crucial contributor. A fully integrated or holistic approach would be of great assistance - at this stage of their studies, students would then be able to include reflection on their learning, and would be motivated to do it (given that PDP would have been embedded in their reflections from first year). The value of encouragement and mentoring from more senior students were seen as beneficial. Utilising the Effective Lifelong Learning Inventory to assist personal tutoring was suggested (for information, Liz Cullen, Education, University of Glasgow).
- The utility of a scaffolded process in earlier years, aiming towards the research project was described. Staff would then understand the line of development and the part played by other activities. Earlier group tasks and mini-projects were seen as contributors.
- In order to assist students reflect, the following questions (from a reflective practitioner model) are helpful: Why did I choose this approach? How did I go about the task? What have I learnt from doing the project? What problems did I encounter, and how did I overcome these? What would I do differently next time? A number of ideas were given for activities to assist student reflection on the task(s) associated with research projects.
 - i Inclusion of a reflective report with the completed project - similar to that done by work placement students, who find the exercise very valuable - but people expect strong resistance from research-embedded colleagues who might fear that such a report would detract from the final product.

- ii An oral presentation, a few weeks before the hand-in date (in order to provide time for feedback and incorporation of ideas).
- iii Translation of the results of the project into a readable article for the lay person - possibly linked to a student newspaper or web page.
- The marking of projects, and the need for considerations of the processes of feedback to students. The merits and challenges of supervisor as assessor were raised, and consideration of the supervisor assigning some marks to process, oral presentation, following of safe practices needs to be given.

Overall lessons learnt from breakout discussion groups

The development of personal transferable skills including PDP might best be conceived as integrated processes that facilitate subject-based learning throughout the curriculum and degree programmes. Some form of assessment, perhaps predominantly formative, may be necessary to motivate students' engagement, but also permit student ownership. Whether at institutional or subject level, it is clear that a single approach is unlikely to be satisfactory for the whole higher education sector and for either staff or students. Particularly if the approach adopted is integrated, it will be necessary for the outcomes to be made explicit, permitting strategic design of learning opportunities that neither duplicate effort nor leave large gaps where particular skills, abilities and attitudes have few opportunities for development. Particular opportunities are presented by the challenge of research projects and dissertations, and may provide a focus that all universities highlight, the nature of research-informed or research-led teaching.

The whole process will require a range of different levels of support. For students, this may include their peers as co-learners and as mentors; for staff this may mean further support for themselves directly or assistance from careers service staff, educational developers etc to help support design or delivery of appropriate learning opportunities. Finally, the whole process requires support, encouragement and backing from senior staff, providing commitment to this as significant strategic initiative that fosters the development of students as learners, not just as a measure for accommodating an externally driven agenda for implementing PDP or enhancing students' employability.