The Trouble with Feedback
New Challenges, Emerging Strategies

Dai Hounsell,  Professor of Higher Education,  TLA Centre

INTRODUCTION

The coming of mass higher education in its 21st-century guise has brought with it a spate of survey findings showing cause for concern about feedback to students on their progress and performance. One of the more substantial of these is a Quality Assurance Agency analysis of nearly three thousand subject review visits in the 1990s to university departments in 62 subject areas (QAA, 2003). It found that “in the vast majority of subjects”, reviewers had highlighted a failure “in a significant number of institutions” to provide adequate feedback on students’ work. Even in the later rounds of visits, and despite some indications that assessment practices had been refined, the reviewers saw this as “the area most in need of further consideration by institutions”. Another major source of evidence is the Enhancing Teaching-Learning Environments project, an Edinburgh-led, ESRC-funded survey of undergraduate courses in four contrasting subject areas across eleven universities (Hounsell et al. 2007c). While the overall findings of this research indicated that most courses worked well as environments that supported learning, the study also revealed pervasive student dissatisfaction with the adequacy of guidance and feedback on set work in most – but not all – of the departments and subject areas surveyed (Hounsell and Hounsell, 2007). And most recently of all, there have been the results of the 2007 National Student Survey (NSS). Nationally, these indicate that there was less satisfaction with feedback than with any of the other aspects of teaching and learning on which final-year undergraduates’ views had been canvassed (HEFCE, 2007). Locally, as figure 1 shows, overall scores on the NSS assessment and feedback scale were lowest amongst the participating Scottish universities and below the top quartile for the UK.

Given the scope and weight of these various findings, and the extent to which they have been echoed in an array of smaller-scale studies (see e.g. Hounsell, 2003, 2007; Crook et al., 2006; Gibbs and Simpson, 2004), it would be hard to view the evidence they furnish as anything but robust or compelling. Yet we should not be surprised, I’d suggest, by what looks like a swelling tide of concern about feedback, for...
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the 21st century undergraduate is, in some respects at least, not as well provided-for as his or her 20th-century counterpart. The larger classes and lower unit costs inescapably associated with mass higher education have made it necessary to reduce the amount of coursework that students are set (to keep tutors' marking loads within manageable bounds) and in many courses, to run fewer tutorials and practicals, as the UK Government conceded in the most recent White Paper on higher education (DfES, 2003). Both measures have had the effect of shrinking students' opportunities for guidance and interaction, while in the older research-intensive universities in particular, the very substantial growth in the casualisation of teaching (first- and second-year tutorials and practicals led in the main by teaching assistants) has reduced students' access to mainstream academics with well-honed expertise in giving feedback. At the same time, an unintended consequence of modularisation and semesterisation has been the 'bunching' of assignments and assessments towards the end of a course unit, limiting the scope for students to carry forward what they have learned from feedback in one task to a subsequent one in the same course unit (Yorke, 2001; Higgins, Hartley and Skelton, 2002; Hounsell, 2007). In such circumstances, as I have argued elsewhere, a collective disillusionment with feedback can easily take root:

Student disenchantment mounts when the feedback they get on their undergraduate work is too sparsely uninformative, or unconstructive, or comes too late to be of much practical use. Their faith in its value to them as learners therefore begins to wane. At the same time, staff who are already hard-pressed to mark and comment systematically on assignments and assessments find growing indications of students not taking feedback seriously, alongside diminishing evidence that their feedback has 'made a difference' to the quality of the work students produce (Hounsell, 2003). Some students, it appears, do not even bother to collect work that has been marked and commented upon, while others do collect it but seem only interested in what mark they got. Staff commitment to providing helpful feedback can therefore become increasingly undermined.  

(Hounsell, 2007, pp. 102-103)

A Question of Variability

Yet despite these various concerns about feedback, it is crucial to be clear-eyed about the nature of the underlying evidence. For whether we look at the national findings or the latest NSS data for Edinburgh alone, they do not show that feedback is done poorly everywhere, nor that student dissatisfaction with feedback is universal. What they present, rather, is a picture of great variability — variability within and across universities, within and across disciplines, and within and across course teams. The quality of feedback, as perceived by students, is in some instances high and commended for its helpfulness, even if it is much less so in others. The pressing challenge for universities, then, is to raise the bar overall. How can the many instances to be found of good and excellent practice in the provision of feedback be much more widely promulgated and adopted, within as well as across disciplines, Schools and Colleges? And how could we better ensure that the many individuals who approach a pile of

Figure 1
Comparative Ratings on Assessment and Feedback Items in the 2007 National Student Survey
assignments or scripts without a personal fund of experience in giving feedback to draw on – new lecturers, tutors or demonstrators – can benefit from the accumulated ‘wisdom of practice’ of their more seasoned subject colleagues?

This article aims to assist individuals, course teams, working-groups, boards, and the University as an organisation, in addressing that challenge. It seeks to do so by drawing together the best of what is currently known about how to give feedback from three complementary sources: the available research evidence; new conceptual perspectives on feedback, guidance and high-quality learning; and published initiatives by university teachers to find new ways of giving effective feedback that will not simply add to their existing workloads. Five main pathways to reviewing and strengthening feedback are explored:

a. fuller information on the current provision of feedback to students;

b. enhancing the quality and impact of feedback;

c. developing students’ capacity to engage with and learn from feedback;

d. blending quality with economy in enhancing feedback;

e. rebalancing procedures and policies.

These are not, it should be emphasised, universal measures. Since current feedback practices are diverse, so too will the salience of any one of these pathways (and the strategies associated with each) vary from course to course and from one subject area to another. Many are already well-established in some courses and some disciplines; other possibilities may prove less appropriate, or less feasible, in particular subjects or programmes of study; and in those instances where feedback is currently well-regarded, there would be less need to consider major changes. But hopefully, most readers of this article will find some possibilities they could explore further, whether as individuals or in discussion with colleagues.

a. FULLER INFORMATION ON CURRENT PROVISION

It would no longer be credible, as it was nearly a half-century ago, to describe university teaching as a ‘secret rite’ that takes place ‘behind closed doors’ (Layton, 1968; Hounsell, 1984). Nowadays, course outlines are publicly available, team-teaching and peer observation are commonplace, and the marking or grading of students’ work undergoes various levels of scrutiny. But the feedback that is given to students on their assignments and assessments is frequently much less visible and often goes unmonitored. It is widely seen as an essentially private transaction between the student and tutor concerned. In consequence, a shared knowledge can be lacking of where, when and how students in a given course or programme of study are given feedback. Nor is this gap bridged by knowledge derived from research, since empirical studies of feedback have typically been small-scale and focused on student and staff perceptions within a particular course setting rather than on the substance of feedback (Hounsell, 2003, 2007). And what little evidence we have of the volume and content of feedback comments within course teams (see for example, Ivanic et al., 2000) points – like the survey findings already mentioned – to wide variability.

b. Questionnaires

Any attempt to reappraise feedback should therefore begin by looking at what is known and not known about current provision — whether within a particular course unit or across a degree programme. And since questionnaires continue to play a central role in course monitoring, a first step might be to revisit what past questionnaires have had to say about guidance and feedback. A second would be to review the adequacy of the specific questions currently posed to students in course evaluation questionnaires. This second step can most easily be taken through a comparison with the questions asked in the National Student Survey (www.thestudentsurvey.com/) or the Enhancing Teaching-Learning Environments project (www.tla.ed.ac.uk/etl/) from which the NSS questions about assessment and feedback were largely drawn. Asking a wide-ranging set of questions about feedback is essential, because satisfaction levels across different aspects of feedback can dip and rise, as can levels of satisfaction from one year of study to another.

c. Feedback, backgrounds and aspirations

Also worth revisiting is what questions are asked about students’ backgrounds and aspirations, both of which may influence their perceptions of guidance and feedback (Hounsell, Xu and Tai, 2007). In first-year courses with diverse intakes, for instance, it may be important to ascertain whether students with certain kinds of entry qualifications, or those whose first language is not English, respond similarly or differently to their fellow-students. Equally, in the first year or beyond, aspirations are also likely to have a bearing on perceptions of feedback: a student taking a subject as an optional or outside course and looking only to pass it comfortably may well value feedback differently from a student who needs to get a high grade to progress to honours.

d. Identifying excellent feedback

Questionnaires of the conventional kind, however, are not well-suited to teasing out the finer-grained kinds of
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information that are also needed about feedback. It is therefore worthwhile to combine them with something more open-ended, perhaps using email, a web discussion-board, focus groups or tutorial discussions. Students can be invited, for example, to nominate the most helpful instance of feedback they have had over the past semester or academic year, and to say why and how it was so helpful. Besides yielding insights on the kinds of feedback students most value, this can also enable good practices to be identified and more widely shared. And over time, building up a folder of students’ nominations (ideally, accompanied by exemplars of tutors’ feedback comments) would be a great boon to new tutors and lecturers looking to build on the expertise of their more experienced colleagues.

Pinpointing troubleshoots

A somewhat different approach may be called for where students’ concerns about feedback seem to persist, or are hard to pin down precisely. This would be to use, in discussions with students and tutors, a diagnostic tool that is an aid to identifying potential troubleshoots. One example is given in figure 2, which draws on research findings (Hounsell et al., 2008) to depict the processes of guidance and feedback in the form of a loop. The diagram highlights the various kinds of concerns that can arise at different points in the loop.

The loop as a whole is also a reminder that there is a close relationship between the feedback students are given after an assignment has been submitted and marked and the guidance provided to them about what is expected prior to and once they have actually embarked on the assignment. As was concluded in the study which yielded the guidance and feedback loop:

“...Lack of prior familiarity with an assessment task could put a premium not only on appropriate and adequate initial guidance and support […] but also a heightened interest in, and perceived need for, informative feedback. Yet where, conversely, where there was a relatively high degree of familiarity with a particular type of task, some students at least could see guidance and feedback as less crucial than usual. Similarly, the potential of an assessed task to feed-forward could be diminished where the earlier guidance had not persuaded students that what they were being asked to do (e.g. to prepare a poster presentation) represented an essential and well-established way of thinking and practising in the subject area.”

(Hounsell, McCune, Hounsell and Litjens, 2008, p. 66)
b. ENHANCING THE QUALITY AND IMPACT OF FEEDBACK

Learning without feedback, it has been said, is like blind archery: it is just not possible to perform to a given standard if you do not know how well you are doing. Feedback therefore enables: it helps to make it possible to hit the target consistently by providing information that can be used to improve performance. But expert feedback and guidance can also enhance and accelerate what is accomplished: it can take a learner to a much higher level of performance – and in some instances more speedily – than would otherwise have been feasible. Put another way, without adequate feedback, our students are likely to underachieve, not fulfilling the best of which they are capable. A commitment to high standards and the quality of feedback thus go hand-in-glove.

Traditionally, feedback in higher education has been provided by the teacher, and in the form of a grade or marks accompanied by comments (usually written) on a student’s assignment or assessment. The grade provides a summary judgment of how well a student has done, while the comments serve a diagnostic function, outlining how that judgment was arrived at by highlighting strengths and weaknesses, or appraising the quality of the student's work in relation to each of the assessment criteria used. The onus is then usually on the student to remedy any shortcomings or weaknesses identified in whatever future opportunities there may be to undertake a similar assignment or assessment.

In 21st century higher education, this approach continues to be widely used, but it is increasingly undergoing significant modification or being complemented by other approaches, as university teachers strive to find ways of maximising the impact of feedback. Underpinning all of these initiatives is a shared concern that feedback should ‘make a difference’, mirroring the influential argument advanced by Paul Black and colleagues that feedback can only serve learning fully “if it involves both the evoking of evidence and a response to that evidence by using it in some way to improve the learning” (Black et al., 2003, p. 122).

Feed-forward

One modification puts the accent on prognostic feedback, or ‘feed-forward’ at it is sometimes called (Hounsell et al., 2007a, pp. 4-5). The aim is to increase the value of feedback to the student by focusing comments not only on the past and present (what was written for or demonstrated in the work under scrutiny) but also on the future — what the student might aim to do, or do differently, in the next assignment or assessment if they are to continue to do well or to do better. A recent analysis of tutors’ comments in two Economics modules (Johnston et al., 2008) provides some supporting evidence for the potential of a shift in emphasis: fewer than 1% of the comments made focused on future work in the subject.

Where a standard assignment pro forma or ‘marksheet’ is used in a course or programme to communicate a grade and comments to students, a shift in emphasis could be signalled by devoting a section of the form to prognostic feedback. However, having a pro forma in place does not necessarily mean that it will be used, or found useable or useful, by tutors. A refocused pro forma may be more likely to succeed, however, where tutors are given an opportunity to confer on how best to pitch and focus their comments after a trial run.

Cumulative coursework

A second modification of traditional feedback, like the first, aims to transform feedback into feed-forward, but through ‘cumulative coursework’ (Hounsell et al., 2007b, pp. 6-7) This entails building into the feedback process a more immediate opportunity for the student to make use of the feedback than would otherwise be the case in today’s mass higher education (Hounsell et al., 2007). The form this typically takes is the cyclical one of draft-comment-revise-resubmit, mirroring the long-established strategy followed in postgraduate research supervision. Feedback is given on a draft, plan, outline or extract, which the student then reworks in the light of the comments made before resubmitting it. (See Hounsell et al., 2007b for examples from various subject areas).

A potential drawback of this approach is of course that unless carefully planned, it risks adding hugely to teachers’ workloads. One way of sidestepping this danger is the direct tradeoff, in which feed-forward supplants and replaces feedback. Comments are therefore given prior to submission but not afterwards, when what is communicated to the student on the finished work is a grade or mark, and perhaps also a set of ‘tick-box’ ratings against key assessment criteria, or collective or ‘whole-class’ feedback (where individual comments to every student are replaced by a leaner, single set of comments addressed to the group or class as a whole).

Another way forward is to redesign assignments, breaking them into smaller steps which link together and build on one another. Successive steps are interleaved with ‘feed-forward’ comments, but in the less time-consuming form of whole-class rather than individual comments. (See McCreery, 2005, for an account of how this was achieved in a large first-year History course at Sydney University by reconfiguring tutorials; and examples from a range of other subject areas in Hounsell et al. 2007b, pp. 4 ff.).
Faster feedback

A third modification aims to increase the impact of feedback by speeding up its provision to and immediacy for students, and so more directly aiding their subsequent performance in summative assessments. It is most commonly found in larger courses where multiple-choice or similar types of questions are a significant component in the overall assessment mix. In such instances, it typically takes the form of an online computerised resource that enables students at various points in a course to test out their understanding, and to get constructive feedback on those items which they answer incorrectly. However, ‘low-tech’ forms of speedier feedback are also feasible by linking rapid, whole-class feedback to tutorial activities, as exemplified in initiatives in the fields of Law (Glofcheski, 2006) and Politics (Macmillan and Mclean, 2005).

New opportunities for feedback

A fourth type of departure from tradition aims to increase the quality of provision by enlarging the terrain over which feedback is typically given. One example of this type is the introduction of ‘personal response systems’, or ‘clickers’, as they are increasingly called. These use technology familiar in game-shows like ‘Who Wants to Be a Millionaire?’ to furnish students with almost instant feedback in lectures on multiple-choice questions that test their understanding of concepts to which they have just been introduced. The use of clickers in science and engineering has been growing rapidly, at Edinburgh and elsewhere (Bates et al., 2006; Howie and McLaughlin, 2006), and they are also being introduced in social science disciplines such as psychology (see e.g. Draper, 2004) which lend themselves to this form of questioning.

A second but very different example extends the provision of feedback to exams, where in many (but by no means all) courses and subject areas, students have often only been given their overall grades or marks as an index of how well they have done. Generally speaking, marking loads and turn-around times for exam scripts make it impractical to offer students the kinds of individualised comments they typically receive on coursework, but feedback can be provided in two other forms. One is via collective or whole-class feedback — for example, some overall observations on the strengths and limitations evident across students’ answers on a given exam paper or cluster of exam questions. Another is in the guise of ‘anticipatory’ feedback (Hounsell, 2007) where, in addition to giving students access to past exam papers, the lecturer also provides a commentary in note form on how past questions were and could be tackled, what potential traps might lie in wait for the unwary, and the comparative advantages and limitations of different approaches to a particular question (Hounsell et al. 2006). Anticipatory feedback, like the use of clickers and the opportunities for self-testing outlined in the ‘Faster feedback’ section above, can be considered a type of pre-emptive formative assessment (Carless, 2007), in that each involves action to forestall potential misconceptions that might otherwise limit what students were able to achieve.

c. DEVELOPING STUDENTS’ CAPACITY TO ENGAGE WITH AND LEARN FROM FEEDBACK

A very different pathway to enhancing feedback switches attention from its customary focus — on lecturers and tutors as providers of feedback — and towards students as active interpreters and users of feedback. From this vantage-point, a prerequisite for high achievement is that students come to hold “a concept of quality roughly similar to that held by the teacher” (Sadler, 1989, p. 121). Without this blossoming grasp of what is meant by high academic standards in a given subject at a given level, it is argued, students will not be consistently able to produce work of high quality, to arrive at an understanding of why a particular mark or grade was merited, or to perceive how they might make the most of the feedback that has been provided.

It was once widely believed that it was really only the ‘weaker’ or ‘struggling’ students who lacked this clear sense of what counts as excellent work, but that view is not supported by the available research evidence. This was most strikingly illustrated in interviews by David James (2000), which had included two students who had each been awarded a prize by their respective faculties for an outstanding piece of written work. In both cases, it had been assumed that comment was unnecessary since the outstanding qualities of the work would ‘speak for themselves’:

Fiona

“You think, oh, it would be nice to know why it was excellent, then perhaps I could do it again! As I haven’t got any idea why it was excellent, I’ll never be able to, but there you go. It took two and a half months or something to get the essay back anyway, so I wasn’t going to send it back for further comments.”

Mary

“When I was told I had been nominated for this award [for one of my essays], I said, ‘What ... me ...? Are you sure you’ve not got the wrong essay?’ and I was decrying myself. And then I said, ‘What did I do?’, because as far as I was concerned I did exactly the same formula as for everything else. So I was interested ... [but] still the feedback wasn’t there. The mark was there. I read it, yes, but I thought, well, I don’t understand, I still don’t understand.”

But how then might assessment and feedback be reconfigured in ways that would assist all students
to become more discriminating connoisseurs of academic standards, or ‘academically literate’, as Bloxham and Boyd (2007) put it? The strategies pursued commonly proceed on the assumption that, as with the development of other forms of connoisseurship where fine-grained judgment is involved, practice in recognising and judging work of varying standards is indispensable. One such strategy involves the use of ‘exemplars’: in other words, illustrations of completed assignments and assessments by students that represent achievement of a given standard. As Royce Sadler himself has suggested, “exemplars convey messages that nothing else can” (Sadler, 2002, p. 136), not simply telling students but showing them what counts as excellent. The model answer (see for example, Huxham, 2007; Nicol, 2006) can of course be considered a well-established form of exemplar, but the latter tends to differ from the former in two respects. First, exemplars are usually authentic instances of students’ work, rather than crafted by lecturers, and so represent less a perfectionist ideal than what can feasibly be accomplished by one’s peers. Second, exemplars are frequently plural rather than singular, providing a range of illustrations of what work of high quality might look like. This second characteristic can also help to allay concerns by lecturers that furnishing students with the model answer or exemplar of excellence may have the counterproductive effect of encouraging unthinking mimicry rather than thoughtful emulation.

But there are other means of fostering connoisseurship amongst students. One route lies in greater use of collaborative assignments (involving groups of students in co-generation and co-writing of a report on a mini-project, for instance) and individual or group oral or poster presentations (Hounsell, 2007). What typifies all of these assignments is that the work produced is not individually and privately transacted between student and tutor (as is generally the case with traditional essays and reports) but is on open display to one’s fellow-students. The exemplars, as it were, are there for all to see. And having this window on other students’ work can be especially important in 21st century higher education, where large classes, juggling academic studies with a part-time job, the care of dependents, and living off-campus can severely constrain a student’s opportunities to mix and confer with other students outwith timetabled classes.

Another route entails not just giving students sight of one another’s work — or indeed of the working processes of their peers, where the activity is collaborative. It also engages them much more directly in the exercise of judgment, through peer feedback (Falchikov, 1995, 2001, 2005; QAA, 2006). Peer feedback does not usually provoke the levels of anxiety or even antipathy – on the part of students as well as staff – that is often associated with the kinds of peer assessment that result in the award of a mark or grade (Liu and Carless, 2006), and can take many different forms:

• students can give one another feedback on drafts or assignment plans, e.g. by making evaluative comments and offering suggestions for improvement;
• students can give comments on a piece of written work or presentation that are designed to sit alongside, or round out, written feedback from tutors;
• students can discuss with one another what a tutor’s written feedback on their assignments might mean, why it might be important, and how it might be acted upon;
• students can be invited to generate the criteria by which an unfamiliar assignment (a poster presentation, say, or a blog or web-derived bibliography) would be assessed by the tutor.

The introduction of peer feedback has spread rapidly, and many examples can be found across the subject range (see e.g. Hounsell et al., 2007b). Practice in giving peer feedback has also been combined with the use of exemplars and with workshops and group discussions where students have an opportunity to engage with assessment criteria and to discuss with tutors why and how these are applied (see for example Rust et al., 2003; Harrington et al. 2006; Price and O’Donovan, 2006; Sambell et al., 2006).

d. BLENDING QUALITY WITH ECONOMY IN ENHANCING FEEDBACK

A widespread and understandable reservation about any initiative to enhance quality is that it will only be achievable at the expense of greater time and effort, and this would be difficult to countenance in an era when both of those resources are already being pressed to their limits. When such a reservation is applied to the enhancement of feedback, however, there are three responses that might be made.

The first, and inevitably the least welcome, is that there may sometimes be circumstances when a greater investment of time and effort is unavoidable, since what is currently being expended is less than is necessary to sustain the standards set. This may well be rare, but we should not be surprised that it can occur in areas of academic practice like feedback where explicit guidelines are few and what counts as ‘normal’ (or good, or the barest minimum, or ‘adequate’) may be hard for anyone concerned – a lecturer, a course team, a subject group – to
establish. Where evidence does emerge of significant student discontent with feedback, therefore, some comparative data-gathering by the course team or subject group concerned may be desirable to check out where that course or subject area stands on the provision of feedback in relation to other courses or subjects. In terms of when, where and how feedback is given, for example, does this course or subject fare better than, the same as, or less well than comparable others? And how well does it compare on the promptness and helpfulness of the feedback given?

A second response, where it is clear that sufficient attention is already being devoted to feedback, is that none of the strategies outlined above need be considered additive. From this perspective, the key to enhancement may lie not in enlarging the number of feedback strategies pursued, but in altering the mix, so that the overall aim is to achieve more for a similar investment of effort. This could be attempted by experimenting within one of the three main pathways to enhancement already reviewed (better information-gathering, higher-impact feedback, refining students’ powers of connoisseurship), or by devising an approach that aims to harness all three.

The third response is that, since not all feedback strategies are equally time-consuming, it is feasible to enlarge the pool of strategies deployed in a given course by incorporating some that require a relatively smaller or even negligible investment of time and effort. The most obvious examples of ‘something-for-almost-nothing’ have already been outlined: collaborative and on-display learning together with peer feedback in its various manifestations, which activate the rich potential for greater student involvement. Also already reviewed above but calling for an initial rather than ongoing investment of additional effort, are exemplars, anticipatory feedback, cumulative coursework and speedier feedback. Whole-class feedback, on the other hand, offers a relatively economical means either of widening the provision of feedback or (when substituted for individualised comments) of freeing up time to incorporate a new and complementary feedback strategy.

Some recent developments also hold out the prospect of striking a better balance between quality and economy of feedback. One is audio-feedback, which can be traced back at least two decades (see e.g. Cryer and Nakumba, 1987), when its adoption was hindered by reliance on cumbersome audio-cassettes. Advances in technology now make it feasible to email audio-recorded feedback comments downloaded via a USB port from a handheld digital recorder. To what extent this will save time, or perhaps offer richer or more accessible feedback for an outlay of time similar to written comments, has yet to be firmly established. Some may find it especially valuable for providing page-specific ‘running commentaries’ on written drafts by honours and postgraduate students.

The computer-supported generation of feedback comments also has a comparatively long history (see e.g. Marshall, 1985). Nevertheless it is only relatively recently that software has been developed which can be used to store, categorise, retrieve and refashion past feedback comments for re-use with current students, to whom the resulting feedback can be automatically emailed (see, for example Denton, 2001, 2003). Recycling comments in this way has particular attractions for larger courses where certain kinds of assignments and assessments recur, and could offer potential longer-term savings in time or scope to give fuller comments within the same timespan. However, it may be less practicable for individuals than for course teams with access to technical support.

e. REBALANCING PROCEDURES AND POLICIES

A leitmotiv of this article has been that the contours of higher education have become reconfigured over the last quarter-century, and if the quality of student learning is to be sustained in the years to come, we need to rethink how best to provide feedback within that changed landscape. That reappraisal, I’ve suggested, should involve not only gaining a better understanding of the effectiveness of current feedback practices; it also entails, more fundamentally, reconceptualising what feedback is, how it influences student achievement, and in what ways assessment and teaching-learning strategies could feasibly be refashioned to optimise the impact of feedback.

But there is one further step to be taken to complete the reappraisal, and that is to look afresh at how feedback – too often a Cinderella in university policies, procedures and structures – can be brought closer to the forefront of debate and deliberation. That need not mean, I’d wish to argue, creating new committees or mechanisms, but instead making better use of what is already in place. For as far as assessment matters are concerned, there already exists at Edinburgh a panoply of procedures and guidelines, among them course approval, second- and cross-marking and moderation, external examining, course monitoring, teaching programme review, undergraduate and postgraduate assessment regulations (supplemented by additional guidance), and a statement of principles of assessment. With the single exception of the latter, these are for the most part skewed towards the summative function of assessment-for-grading. Yet the wellbeing of assessment-for-learning, its formative twin, has just as decisive a role to play at Edinburgh in safeguarding the pursuit of excellence in learning. Bringing feedback into the mainstream ought therefore to be a priority.
A FESTIVAL OF FEEDBACK

Tradition and Innovation in Feedback and Guidance to Students

Tuesday 17 June 2008
10.00 – 3.00
Playfair Library, Old College

This Festival shares insights from within and outwith the University about how to give good feedback — feedback that enables students to pursue high academic standards and give of their best.

The Festival combines a rich showcase of examples from across the University’s Schools and Colleges with seminar and keynote presentations. The aim is to celebrate the best of traditional as well as novel approaches to providing feedback, guiding students on what counts as high-quality work in a discipline or subject area, and designing assignments and assessments that foster high-quality learning.

The Festival will take place in the Playfair Library and adjacent venues in Old College. The Principal has kindly invited all Festival participants to join him for lunch in the Playfair Library.

In addition to the many showcase and seminar contributors, there will be an invited keynote by Professor Royce Sadler, whose writings on formative assessment (or assessment-for-learning, as it is sometimes called) have been enormously influential globally. Professor Sadler is based in the Institute of Higher Education at Griffith University, Queensland, where he was until recently Pro Vice-Chancellor.

Provisional Programme

10.00 Registration and Coffee
10.30 Introduction and Overview
   Professor Dai Hounsell, TLA Centre
11.00 Workshops and Seminars I
11.45 Workshops and Seminars II
12.30 Showcases
1.00 Lunch
1.50 Keynote Presentation
   Professor Royce Sadler, Griffith Institute of Higher Education
3.00 Close

For further information or to register, see the TLA Centre website at www.tla.ed.ac.uk
Have students coming to the university changed at all over the last five years or so?

Well, I’ve been here in Physics for nine years now, and I think there have been an awful lot of changes in terms of our entrance students. We notice subject-specific things like declining mathematical preparedness. But also, I think the general realm of what learning at university is like, and in some cases, how markedly different that is to learning at school. I think everybody sees it and feels it as a step; it’s just a bigger step and harder to climb up for some students. Part of what I see we’re doing here in first year, is preparing them for how learning at university is going to be different compared to learning at school. For example, students clearly expect that the problems they’re going to come and solve will be neatly packaged and soluble, and it’s not always like that. Well, maybe you can solve the problems in first year or possibly even at second year. But there are some very difficult problems that, as you go through the curriculum and get to the final year might not be solved in a twenty-two week research project.

The proportion of our students having to work has increased dramatically in the last five years, and I’m sure it will be the norm for students at some point in their university career, not the exception. That does place demands on them, not just for the time spent in employment, but the time it takes away from studies, and potential difficulties meeting timetable commitments. I think we tend to forget or just don’t know what it would feel like to have to juggle the demands of part-time employment. A lot of the time we don’t know individual student circumstances unless as a Director of Studies they come to us because of difficulties managing all these commitments. Having lecture materials and information available on-line, essentially anywhere, anytime, has helped things a bit, but it’s certainly not a magic cure for all these problems.

However, I think that the best students we take in are just as good as five or ten years ago. I get the feeling that these are the students who will thrive and survive no matter what we do. But there’s definitely a wider spectrum, and that breadth is very difficult to accommodate in a single course. You have to provide enough stimulus and challenge to keep the highly motivated students interested, whilst at the same time acknowledging the many different backgrounds, abilities and aspirations within the class. Physics is an outside subject for about 40% of those in first year physics courses. So it’s just being aware of that spread and the fact that the spread is increasing.

Have you consciously made adaptations in your own approaches to teaching and learning, in the light of these kinds of challenges?

Yes absolutely, but that’s been gradual over a period of years. Certainly the first year course that I teach, a lot of them have seen the material before, to some degree and depth. In some ways that makes life a bit harder because they can come in and read the syllabus and they can think ‘Oh, well, we did all this before’. And so part of what we try to do is show them that there is more depth and subtlety to even familiar material than they might have previously appreciated.

One thing we introduced a few years ago are the electronic voting systems – the ‘clickers’. They’ve really spread, particularly throughout Science and Engineering. It’s interesting, because on the face of it, it looks quite gimmicky – everybody makes the analogy with ‘Who Wants To Be A Millionaire?’, and in an operational sense that’s how they work. But I think there is an educational value to them, because they completely disrupt and destroy the traditional mono-directional lecture; having a device that can engage you and almost force you to think about what you’ve just heard ...

... the clickers ... completely disrupt and destroy the traditional mono-directional lecture; having a device that can engage you and almost force you to think about what you’ve just heard ...

Dr Simon Bates is a Senior Lecturer in Physics and Director of Teaching for the School of Physics. In 2006, he was awarded the Chancellor’s Award for Teaching. Kate Day from the TLA Centre asked him about changes in higher education and his approach to teaching in the light of these changes.
students passively sitting there taking it in, thinking, ‘Yeah, I understand that’, it’s active. It’s getting them to test their understanding and get very rapid feedback. And it’s feedback on all different kinds of levels. It’s feedback to them on their particular kind of understanding, and it’s feedback to them on what the class understands, and it’s feedback to the lecturer as to how the concepts, ideas and material are going over. Sometimes we would have only found that out when marking the end-of-year exams.

If you give students a way to participate that they find easy to use, enjoyable and valuable to their understanding, then some interesting things are going to happen. It’s been a huge amount of fun as well, although not always particularly comfortable. I remember the first time was real seat-of-the-pants stuff. We didn’t know if it was going to work at all! But it did, and it’s proved very popular and very successful, I think, in getting people to think about the way they do their lecturing.

**What about the new teaching spaces?**

Yes the teaching studios, certainly from our perspective in Physics, have been fantastic. They’re a much more functional space that the labs we used to teach workshops in, giving us the opportunity to do slightly different things with more flexible and slightly re-configurable space. In the workshop classes two or three experimental stations are set up, and from time to time during the afternoon groups hive off from the regular programme of activities to gather some data. In fact, we did that for the first time this year for the first year class, and at the same time it allowed us to redesign the experiments. We had to have something simple and portable because we couldn’t set the equipment up and leave it there for a few weeks, but still related to the material being covered in lectures and in the workshops themselves. So it allowed that opportunity.

When the studios came along, we knew exactly what we wanted to do and translated what we were doing in an unsuitable environment, into the new space. Having said that, as other people have adopted these spaces, other Schools and other classes, you need to go away and think about how you can adapt that to what you do with your own students.

**What about changes in technology?**

Technology’s interesting because quite often, particularly in the sciences, I get the feeling that technology is put at the forefront, rather than the academic or the educational question. There’s this new technology, so we should use it - how are we going to use it? Well, to me that seems the wrong way round. It’s the technological cart before the academic horse. I think what we’re trying to do with technology is always to have an idea what the problem is. What is the educational issue that we’re trying to address or improve or solve here? And then, which one of these various tools or technologies – from the vast range that has grown enormously – will help us achieve that?

The technologies don’t have to be particularly advanced or sophisticated. One good example of that is in project supervision. During the last couple of years I’ve started using electronic project notebooks or lab-books with students, instead of hardbound ones. There are freely available tools which are collaborative on-line environments where students can document their progress on the project, pull in literature and describe the work that they’re doing. And I can see it at any time, edit and put comments on it. So, effectively, it’s a fairly sophisticated word processor, on-line, that multiple people can edit, and view. I’m able to fit it in as and when it suits my requirements, rather than having to phone students up saying, ‘I need to have a look at your notebook, could you come up here with it in the next half hour?’ That’s one example of a very simple and freely available technology which serves a particular purpose.

I do think there’s a general temptation to think of technology as a solution for all our problems in an educational context ... it still requires a good sound understanding of what you’re trying to achieve educationally.

I do think there’s a general temptation to think of technology as a solution for all our problems in an educational context ... it still requires a good sound understanding of what you’re trying to achieve educationally. Take, for example, WebCT. At its best, the virtual learning environment can be a fantastic resource for students. It can help them fit their studies around their other commitments. It can do things that are very difficult to do in a different context, – videos, simulations and hands-on interactivity. At worst, it can just be a digital filing cabinet for lecture notes that replaces the pockets on the office door. The VLE does not solve your problems, and in some cases creates other problems for you,

**Has the introduction of the college structure had any impact on teaching and learning in your particular area?**

Well for us in Physics we were part of a Faculty of Science and Engineering, that became a College and didn’t really change as much as other areas of the University. Some people might have felt it was just a name change, a re-badging. But I think the devolution that has gone hand-in-hand with this, both in an
academic sense and particularly financially, has been significant.

One particular example concerns the ‘maths problem’ mentioned earlier which we’ve been grappling with for a long, long time. Last year we decided to try to construct for pre-honours students additional support with those core mathematical skills that we knew they really needed to have mastered in order to succeed at Honours level. To introduce this from scratch is a big job which you have to concentrate on and not get distracted, so we made the case to the School for a Teaching Development Officer, a new full-time open-ended post, with solely a teaching-focus remit. If they wanted to continue with some research it would be in the educational area of the discipline. I had to convince the School that this was a good idea – and that was it – it didn’t need to go anywhere else. We were lucky enough to hire an excellent candidate and the course she designed ran last semester. It’s very different in design - all workshop based, no lectures, high contact, and very tutor intensive. There’s nowhere really for the students to hide and they get one-to-one tuition every week, even if only for ten minutes. We targeted via their Directors of Studies the thirty students most likely on the basis of their first year marks (40-50%) to be at risk in second year. The exam was last December, and had something like a 75% pass rate. Now, of course, time will tell how these students progress through the rest of their second year, and on into third year, but that kind of pass rate is broadly commensurate with general first and second year physics courses, at the first sitting of the exam, which have a very different cohort of students.

So, going back to the original question about the College structure, that’s one example of creating a post, hiring a person, and designing a course, which might have been possible before but certainly wouldn’t have been achieved with the same ease and in such a timely way.

How do you combine your various teaching, research and administrative roles?

I think an awful lot of people would like to know the answer to that question. I don’t know. I’ve tried the approach that many people fall into naturally which is a gradual creep and accumulation of tasks. And then you realise you’ve been working sixty-hour weeks. I’ve done that in the past and it’s not a good idea in the long-term! Learning to say ‘no’ to things is still something I should do a lot better, but I do it better than five years ago. It’s part of trusting people to do just as good a job as you would yourself. But managing multiple and competing demands is very difficult, particularly when traditional structures and the ethos about the place may pull people in a certain direction. But I think there’s now good evidence that it doesn’t have to be that way. The University for a long time has said, ‘We value teaching and take it very seriously’, and now it’s not just woolly words coming from the centre. There is substance behind it; for instance, the establishment of personal chairs for teaching, and seeing ‘real’ people – ordinary academic staff at the ‘coalface’ – get them. Of course these things take time – there are still relatively few of them.

And what about your own recent award?

The Chancellor’s Award? That’s another indication that the University really does value teaching and take it seriously, as it should because it’s a core component of what a university, and what this university, is supposed to do. We’re not just a research institution, we’re a university!
The Principal’s Teaching Award Scheme

Carolin Kreber, Director, TLA Centre

The Principal’s Teaching Award Scheme (PTAS) was officially approved by the Development Trust in May 2007. The scheme is intended to encourage and support activities that will make a significant contribution to the enhancement of learning and teaching at the University of Edinburgh at both the undergraduate and postgraduate level.

A total of ten proposals were submitted in the first round of applications of which four were funded. Congratulations to the teams featured below! For further details on any of these projects, and on how to apply to the scheme, please visit the TLA website at www.tla.ed.ac.uk/centre/PrincipalsTeachingAward/PrincipalsTeachingAward.htm. In the early phases of the PTAS preference is given to proposals which can demonstrate linkages to the Colleges’ Teaching and Learning Strategies and/or the Scottish Enhancement Themes (e.g., Research-Teaching Linkages, The First Year, Integrative Assessment, etc. For details see http://www.enhancementthemes.ac.uk/).

The ultimate goal of the PTAS is to encourage reflective, and also critically reflective, practice on teaching, learning and assessment so as to better support and enhance the learning experience of students. The PTAS is therefore not limited to any particular kinds of questions or modes of inquiry but invites a wide range of proposals linked to the Scottish Enhancement Themes or the Colleges’ Teaching and Learning Strategies. Some projects tend to be more investigative in their orientation (Type A projects) while others tend to be more oriented towards enhancement and innovation (Type B projects). In practice, however, there is a good deal of overlap between the two (see guidelines to the scheme on TLA website).

Questions such as ‘what are our students learning on our courses (or programmes)?’, ‘do they develop the knowledge, dispositions and qualities we hope they will acquire?’ and ‘what might be barriers to their academic learning as well as intellectual and personal development?’, are as important as those which ask ‘do they report more positive experiences after certain practices were changed (is one method better than another)?’, and again as important are those which focus on ‘what might be ways of encouraging innovation or change in teaching, learning and assessment in the particular local departmental cultures we find ourselves in?’. The scheme is intended to encourage not just innovation in teaching and assessment but, perhaps more significantly, engagement with the more profound question of why some innovations might be more meaningful than others in supporting student learning given present contexts.

Successful proposals from the December 2007 deadline

Feedback on Feedback: Exploring and Developing Student Feedback in Veterinary Medical Education
Principal Applicant – Professor Susan Rhind, Royal (Dick) School of Veterinary Studies
with Dr John Mosley, Dr Graham Pettigrew, Dr Catriona Bell, Professor Danielle Gunn-Moore, Professor Jimmy Simpson, Dr Claire Phillips, Dr Darren Shaw

Widening Peer Mentoring Among Postgraduate Tutors Using a Wiki
Principal Applicants – Dr Jessie Paterson & Dr Sara Parvis, School of Divinity
with Mr Jason Wardley, Dr Michael Purcell, Dr John McDowell

A Quantum Mechanics Concept Test
Principal Applicant - Dr Simon Bates, School of Physics
with Dr Marialuisa Aliotta, Dr Judy Hardy

Moving Towards Essay Examinations Written on Computers
Principal Applicant - Dr Michael Purcell, School of Divinity
with Dr Jessie Paterson, Mr John Burk, Ms Nora Mogey (Information Services), Mr Thomas Graham (EUSA), Dr Peter Wright, (retired, formerly Psychology)
This article is based on a conference paper given by the first two authors at the ESRC/TLRP project conference ‘Enhancing the Quality and Outcomes of Disabled Students’ Learning in Higher Education’ at the University of Edinburgh on 24th October 2007 and draws on material in forthcoming chapters from the project (Fuller and Healey, forthcoming; Roberts, forthcoming).

Despite the growth of research into the disabled student experience of high education, with some notable exceptions (e.g. Riddell et al., 2002), the voice of disabled students has rarely been heard beyond the anecdotal. This article summarises the findings relating to learning, teaching and assessment of the ESRC Teaching and Learning Research Programme (TLRP) project ‘Enhancing the Quality and Outcomes of Disabled Students’ Learning in Higher Education’, led by Professor Mary Fuller. The project has sought to remedy this research gap by documenting disabled students’ experiences of higher education in the students’ own words.

The study draws on longitudinal interviews with 31 disabled students about their experiences of learning, teaching and assessment across four universities. It also supplements these findings with material from a survey of 548 disabled and non-disabled students at one of the universities.

Reasonable adjustments

Reasonable adjustments form a key part of institutional provision for disabled students within higher education. This article uses project findings about students’ experiences of reasonable adjustments to argue for fundamental change in both their design and implementation.

Reasonable adjustments are enshrined in current UK disability legislation. The Disability Discrimination Act 1995 (as amended by The Special Educational Needs and Disability Act (SENDA, 2001)) places a duty upon universities to make anticipatory reasonable adjustments for disabled students. The Disability Discrimination Act 2005 also amended this legislation to require HEIs to produce disability equality statements, as part of the general disability equality duty for public sector institutions. UK legislation therefore requires all staff (both academic and support) to provide a learning environment where disabled students are not disadvantaged.

The project found that there was wide variation in the student experience of reasonable adjustments made to teaching, learning and assessment. This suggests that there are differences in how the legislation is being interpreted, reflecting the diverse policies and practices of institutions, departments and individual staff. These differences may reflect cultural variations in practice, but also highlights potential inconsistencies in the application of institutional policies and a hazy knowledge among many staff and students about reasonable adjustments. These findings help to explain why learning, teaching and assessment areas feature strongly in cases brought against higher education institutions under legislation in Australia, and in emerging UK case law (Adams and Brown, 2001; Adams, 2007a).

Argument

Based on these findings, it is our argument that it is invidious to treat disabled students as a separate category; rather they fall along a continuum of learner differences and share with other higher education students similar challenges and difficulties; sometimes the barriers are more severe for them, but sometimes they are not (Hall et al., 2002; Healey et al., 2006). For the great majority of disabled students they are first and foremost students, not disabled people.
In principle, reasonable adjustments should ensure that learning, teaching and assessment enable and measure the true academic achievements of disabled students, regardless of impairment. However, the problem with many reasonable adjustments is that they are aimed, often rather bluntly, at particular groups of students. For example, the most common assessment adjustment for students with dyslexia is to give them all a standard amount of extra time to hand in assignments or in which to sit examinations.

However, the problem with this practice is that there is rarely any theoretical justification for the additional time, and in any case no allowance is made for differences in the severity or form of the dyslexia. Elton (2000: 1) has argued that: “I cannot think of anything more unfair than … to treat all students as if they are the same, when they so manifestly are not.” Our project found that while many individual disabled students welcome certain kinds of adjustments, they make no use of others. For example, one student might use extra time in exams but not for handing in assignments, while for another the opposite may be the case.

It is our contention that far fewer reasonable adjustments would be necessary if learning, teaching and assessment were designed to be inclusive. In line with this approach, the Disability Equality Duty requires HEIs to make proactive system-wide changes rather than individual reactive choices when problems arise. With this argument in mind, it is possible to describe three distinct reasonable adjustment typologies.

**Types of reasonable adjustment**

**Individual assimilations.** This kind of reasonable adjustment involves special arrangements made for individual disabled students to help them cope with existing learning, teaching and assessment practices. Examples include being given extra time or a separate room in exams, or being provided with a notetaker. Individual assimilations are the most common approach used within higher education. Waterfield et al. (2006: 81) have argued that one type of assimilated reasonable adjustments – special examination arrangements – can be seen as an example of “reactive practice which is indicative of an assimilation culture” (Box 1).

**Box 1:** Jean (education, dyslexia) experience of being given extra time in exams

“I have this label … you are treated a bit different, which is good because you think … I do need extra time in exams … but I am aware … of people saying to me ‘Oh I didn’t see you in the exam hall’.”

**Alternative arrangements.** Alternative arrangements for learning, teaching and assessment are provided for particular disabled students. Examples include a virtual fieldcourse for a student with a mobility impairment, and a viva being provided for an individual student as an alternative assessment to test the same learning outcomes as a written assessment (Box 2).

**Box 2:** Andrew (education, cerebral palsy) was provided with an alternative fieldwork exercise

“Obviously there was a lot of stuff I couldn’t do because of my legs and whatever. The river study was one particular thing. They accommodated me really well. They just said ‘you don’t need to do that’ but Sheila, one of the assistants, she took me in the van and we went to a visitor centre and I evaluated the usefulness of the visitor centre. I was doing something, although it was different to the rest of them, I wasn’t just sitting in a cabin with my feet up.”

**Inclusive arrangements.** When inclusive reasonable adjustments are put in place they are provided for all students. One example of inclusive adjustments is to make alternative assessments designed to test the same learning outcomes available to all students. Another example is the provision of handouts before lectures (Box 3).

**Box 3:** Brandon (engineering, dyslexia), along with all the other students on his course, gets lots of handouts in advance which means he does not need his notetaker

“I can listen to the lecture and remember. We get lots of handouts and notes, which is good for me because rather than look at my notes I can look at theirs. In maths they gave us a CD at the beginning of the year and that has all the notes for the whole year, exam questions and answers.”

Inclusive adjustments correspond with our argument that disabled students should not be treated as a separate category of student. This approach also allows for diversity in learning styles among students and avoids (often visibly) singling out disabled students from their peers. Instead, an inclusive approach to reasonable adjustments removes the distinction between teaching and assessing disabled and non-disabled students. While individual adjustments will always be necessary in certain cases (and we would argue these are a minority), inclusive practice in the provision of reasonable adjustments will remove the need for large numbers of often unwieldy individual adjustments.
Variation in learning, teaching and assessment experiences

Two students with the same impairment can have very different learning, teaching and assessment experiences (Box 4); whereas the experience of individual disabled students may vary for different learning scenarios (Box 5).

Box 4: Experience of two students with dyslexia

“I’m good at oral presentations but sometimes misspell on OHPs.”

“I hate oral presentations because it is very difficult for me to converse my ideas out aloud and this is not to do with confidence but speech problems.”

Box 5: Jean (education dyslexia) had different experiences with different lecturers

“If she put an overhead up in a lecture theatre or a workshop … she would … do it paragraph by paragraph … and she would read it out as well … so I would get it audibly and visually.”

“She moves into the group as overheads are swishing on and off, she is talking about something else which is so important that I am supposed to be taking it down and I am a bit like … ‘what do you want me to do?’”

All learners have diverse needs and experiences. This suggests that general policies may not meet the specific needs of individuals. However, given the extent of the diversity it is also unsustainable to make numerous individual reasonable adjustments (although, as we have argued, this may be essential in a minority of cases).

The table below illustrates areas where disabled students appear to have significantly greater difficulties than their non-disabled peers. These areas include physical difficulties with writing, literacy skills and taking notes. However, there are other areas where disabled students have less difficulty than their fellow students – in knowing the standard of work expected, and with group work and oral presentations (Table 1).

These findings support our argument that assumptions about the disabled student experience, and indeed the ‘catch all’ category of ‘disabled student’ can be problematic. They also suggest that for the most part disabled students have similar experiences to non-disabled students of learning, teaching and assessment and support our argument against treating disabled students as a separate category. However, it is important to note that in a minority of situations disability-related barriers do have a significant impact on their learning, teaching and assessment experiences.

Conclusions

In conclusion, far fewer adjustments for disabled students would be required if learning, teaching and assessment were designed to be inclusive from the beginning. Inclusive learning, teaching and assessment experiences of disabled and non-disabled students in one university.

Table 1: Selected learning experiences of disabled and non-disabled students in one university

<table>
<thead>
<tr>
<th>Areas in which disabled students have greater difficulty (10% + point difference)</th>
<th>% disabled students (n=276)</th>
<th>% non-disabled students (n=272)</th>
</tr>
</thead>
<tbody>
<tr>
<td>I have had difficulty in taking notes</td>
<td>55</td>
<td>24</td>
</tr>
<tr>
<td>I have had difficulty due to the time given to read material not being realistic</td>
<td>45</td>
<td>32</td>
</tr>
<tr>
<td>I have had difficulties with the amount of time I require to complete assignments</td>
<td>55</td>
<td>39</td>
</tr>
<tr>
<td>I have had physical difficulties with writing</td>
<td>25</td>
<td>5</td>
</tr>
<tr>
<td>I have had difficulties with lecturers not understanding my circumstances</td>
<td>29</td>
<td>11</td>
</tr>
<tr>
<td>I have had difficulty with literacy skills</td>
<td>54</td>
<td>17</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Areas in which non-disabled students have greater difficulty (5%+ point difference)</th>
<th>% disabled students (n=276)</th>
<th>% non-disabled students (n=272)</th>
</tr>
</thead>
<tbody>
<tr>
<td>It’s easy to know the standard of work expected</td>
<td>51</td>
<td>43</td>
</tr>
<tr>
<td>I have had difficulties with participation in group work</td>
<td>19</td>
<td>29</td>
</tr>
<tr>
<td>I have had difficulties with oral presentations</td>
<td>28</td>
<td>33</td>
</tr>
</tbody>
</table>

Source: Healey (et al., 2006: 40)
assessment removes divisive distinctions between disabled and non-disabled students. This argument is at the heart of the universal design for learning movement which focuses on being usable by all students without the need for adaptation (Burgstahler, 2001). For example, Adams (2007b: 10) notes that “For me, the beauty of [universal design approaches], is that an individual’s impairment is not seen as a barrier but rather, the focus of how best that individual learns.”

Ironically, the main beneficiaries of disability legislation may in fact be the non-disabled students, because many adjustments (particularly inclusive adjustments such as well-prepared handouts, written as well as verbal instructions, online lecture notes, variety and flexibility in assessment) can be simply seen as good teaching and learning practices which benefit all students. “One unintended consequence of this (disability) legislation is that as departments and institutions introduce more flexible learning and alternative ways of assessment for disabled students, demand is likely to rise for giving greater flexibility for all students. Disability legislation may prove to be a Trojan horse and in a decade, the learning experiences of all students may be the subject of greater negotiation.” (Healey 2003: 26).

Part of this negotiation may well focus on the definition of ‘disabled student’. It is our argument that removing this separation will allow staff to appreciate better the diversity of learners and thus lead to greater sensitivity to individual student needs. A more constructive approach may well be to see all students (and staff) as impaired: “We believe that the claim that everyone is impaired, not just ‘disabled people’, is a far-reaching and important insight into human experience, with major implications for medical and social intervention in the twenty-first century.” (Shakespeare and Watson 2002: 25).

References
Adams, M. (2007a) personal communication, 25 September

The University of Edinburgh Disability Equality Scheme

The University of Edinburgh’s Disability Equality Scheme was launched in October 2007. This Scheme draws together initiatives within the University to enable disabled students and staff to participate fully in University life, and provides an Action Plan to continue to develop good practice. Details of the Scheme can be found at www.aaps.ed.ac.uk/regulations/des/.

At the launch event for the Scheme, examples of innovation in teaching and learning from across the University were showcased. These projects were funded by grants from the Disability Office. Two of these are described below.

Further information about the Disability Office can be found at www.disability-office.ed.ac.uk.

Improving Access to Fieldwork

Roger Scrutton and Sue Rigby
School of Geosciences

Earth Sciences fieldwork is widely recognised as one of the most difficult parts of the curriculum in which to make adjustments for the full participation of disabled students. It is physically demanding, yet it is a core part of the curriculum, essential for degree accreditation, and recognised by the students themselves as the most dramatically revealing part of their studies in Earth Science. Our project was developed as a result of undertaking a School Teachability audit, which looked at how accessible our curriculum was to disabled students.

For general purposes a valuable adjustment is the availability of video recordings of the most important parts of field excursions. Video embedded in an explanatory web page improves accessibility for a very wide range of students, from those who require more time to assimilate material to those who might have mobility difficulties. We have found it particularly useful for students who are not confident in climbing or descending steep slopes to critical rock exposures.

The project entailed making videos of the most crucial rock exposures on our three local field excursions for first-year students and embedding them in an explanatory web page. Two important features of the new material are:

• The web pages are formatted via a style sheet so that someone who needs alternative text sizes, fonts or colours can select their own style sheet.

• It is structured so that it can be recorded on a CD that can be used where network connection is not available or difficult to access.

Facilitating Molecular Laboratory Techniques for Visually Impaired Students and Staff

Alison Creasey and John Logan
Institute for Immunology and Infection Research

Many high-throughput techniques routinely used in molecular biology laboratories employ clear plastic multi-well plates. Accurate dispensing of different colourless reagents into each well, often in a variety of patterns across a plate, poses obvious difficulties to workers with any degree of visual impairment. Inaccurate or failed experiments lead to frustration, discouragement and considerable waste of time, energy and money.

This project was designed to test the feasibility of adding non-toxic food dyes to laboratory reagents to improve visual feedback without compromising the accuracy of results. A suitable system of colours for use in the Polymerase Chain Reaction has been developed and tested. The resulting DNA products were then assessed for the downstream applications of sequencing, pyro- and proportional sequencing, and insertion into plasmid vectors for protein production.

We anticipate that this system will be of benefit to students and staff who have specific visual difficulties in refractive colour perception as well as those who wear corrective lenses. The simple techniques should have wide application in student practical classes, Honours projects and research laboratory work.

The ISIS “course” was facilitated by funding from the Principal’s eLearning Fund. The team included collaborators from academic schools and from Information Services assisted and cajoled by two specialists secondo from posts elsewhere in the university: Caroline Stirling and Charlie Mansfield. The overarching aim is to make it easy for students to find the sorts of generic support materials that they might need, with a sub-aim of helping course teams by providing a core of tailorable and re-useable content that they could adapt and embed within discipline specific courses. As increasing numbers of schools make routine use of WebCT, it is becoming one of the online spaces that students visit frequently. We believe that positioning other material so it is included in each individual’s WebCT course means that it is easily found.

Who is ISIS for?

Although ISIS is aimed mostly at students it is for everyone who is interested. Anyone who wishes to have access to ISIS is more than welcome to do so (email isis@ed.ac.uk with your UUN or matriculation number and say you would like access to ISIS). All first year undergraduates should have access along with overseas taught MSc students. Some course organisers have asked for their whole classes to be added to ISIS (again email with the request).

Some staff may wish to have access to ISIS with the intention of directing some students to consult material that is not directly included in their course, or with a view to adapting ISIS content and reusing it.

What is ISIS like?

ISIS is described to students as

“a resource intended to help you find stuff that you need to know, but which is not discipline specific. It is not a course that you are required to follow, there are no compulsory assignments; it is just stuff which we hope is useful.”

The ISIS homepage in WebCT
The ISIS team decided from the outset to focus on the sort of tasks that students might be undertaking, hence the content is organised under headings such as: ‘Finding reading materials’; ‘Understanding plagiarism’; ‘Keeping your work safe’ and ‘Getting used to university’. Each topic leads on to a variety of resources, many of which are links to pre-existing websites, both internal to the university and beyond. Topics are not all identical in structure or in tone. Materials are provided as text, video, cartoons and photographs, and supplemented in some cases with quizzes or self assessments. Some items are light hearted, some are serious. Some content has been drawn from national repositories such as the national learning network (http://www.nln.ac.uk/) or Higher Education Academy centres (http://www.heacademy.ac.uk/ourwork/networks/subjectcentres), and other topics give access to existing but perhaps little known university licensed resources such as maths for engineers (look in the dealing with data topic!).

Generally it is expected that students will dip in to ISIS as and when they identify a need, and hopefully they will find something there to help. We recognise that different students have different approaches to study so although there is no imposed structure overall, many of the topics are organised in a sequential manner if students wish to follow them in that way.

Suggestions for new topics, alterations or amendments are always welcome. Just email isis@ed.ac.uk.

A course such as ISIS will never be truly finished, it is not intended to be static, it will require constant revision and updating. Hopefully users will suggest improvements and alterations as other useful resources are sourced: feedback forms and links are provided to encourage this.

How is ISIS being used?

Anecdotal evidence suggests that the concept has been well received, and there is enthusiasm for extending and improving ISIS. The unit on plagiarism has been reused in a number of academic courses, and we are aware of a number of lecturers and tutors who regularly remind their students about ISIS and the sorts of resources it holds. The topic on finding reading materials is another favourite perhaps because it splits the problem into clear and manageable stages

With over 10,000 enrolled members, ISIS is easily the largest WebCT course at Edinburgh in terms of its membership and exploring the detailed tracking data available from WebCT has not yet been completed.

A small evaluation study is planned for Spring 2008 with the intention of gathering some detailed feedback from students and staff about ISIS and its future development. It is hoped that the evaluation will give specific recommendations about where to focus immediate future activity.
Introducing Iris

Interview by Jenny Hounsell

Dr Chiang Kuang Chun (who likes to be known as Iris Chiang) joined the University last summer when she took up the post of Lecturer in the Centre for Teaching, Learning and Assessment.

Iris was born in Taiwan, where she completed her first degree in Sociology with English before teaching in a primary school. She then studied for her Masters in Human Relations in Education at Nottingham University. Her first experiences of life in Britain came as something of a culture shock, although she was relieved to discover that some of the information she had been given was incorrect: for example, Britain north of Manchester is not covered in ice for the whole of every year! However, having adapted to a cooler British way of life, she opted to study for her doctorate at the Institute of Education in London. Having met and talked with various doctoral students at Nottingham and elsewhere, some of whom had mixed views about their postgraduate experiences, she decided to focus on the relationship between staff research and teaching in doctoral education with special reference to disciplinary variations, and she surveyed students in the subject areas of Education and Chemistry.

Iris’ first research post was as Senior Researcher on the project ‘University-Industry Partnership and its Influence on the Research Training of Doctoral Students’, at the University of Turku in Finland. In this context there was strong government pressure to increase the linkages between higher education and industry, particularly in the sciences. Iris studied the effect this had on research training for doctoral students in these disciplines.

This was followed by two years in Dijon at the Université de Bourgogne as a Post-Doctoral Fellow. This gave her the opportunity to pursue further her interest in the relationship between research and teaching in doctoral education, this time surveying students in the disciplines of Chemistry and Economics. On the following page Iris writes about some of her findings, and they have also been published in the International Journal of Sociology, Social Policy, and Higher Education Policy.

Iris was keen to join the TLA Centre as her interest in teaching at university level has increased during her academic career and she would like to use her research to contribute to the quality of teaching in the University. Within the Centre she has been helping to design and run some of the modules in the Postgraduate Certificate in University Teaching. Academic staff who have taken part in this programme since last summer are likely to have met her while taking modules on ‘Course Organisation and Management’ or ‘Student Diversity’. She is also helping to organise the forthcoming Thirteenth Annual Forum for Course Organisers.

Iris will also be continuing to pursue her research, particularly in the areas of:

- the research training and academic experiences of postgraduate students;
- the relationship between teaching and research;
- disciplinary differences and departmental cultures and their effect on this relationship;
- and university and industry partnerships and their effect on the experiences of students.

Her experiences of higher education in four countries have helped her to develop a wide knowledge of teaching and learning practices and policies across very different cultures and systems at both undergraduate and postgraduate level.
Is there a link between staff research and doctoral supervision?

Iris Chiang

It would seem to be self-evident that because doctoral students are doing research, research and teaching are certainly positively related at this level. However, is this the case?

The results from my research interestingly indicate that, contrary to popular belief, little relationship between departmental research performance (the RAE score) and the quality of doctoral supervision as perceived by doctoral students was found in Education (as a representative of social sciences) and in Chemistry (representing natural sciences). I surveyed more than 2,200 full-time PhD students in 28 Education and 31 Chemistry departments across the UK. The study was based on the most recent data at the time, which was the 2001 RAE scores.

In my study, three major components in supervisory effectiveness were identified:

- the supervisor’s facilitation of learning;
- the supervisor’s accessibility;
- the relevance of the supervisor’s research to the student’s research.

When other variables were held constant, the RAE was not related to the supervisor’s ability to facilitate learning, though this was more favourably perceived in Chemistry than in Education. A similar result was found between RAE scores and the relevance of the supervisor’s research to the student’s research. RAE scores had little bearing on this aspect in both subjects although Chemistry supervisors’ research was found to be closer to their students’ research than was the case in Education.

On the other hand, having taken account of other variables, there is a slight negative association between the RAE scores and supervisors’ accessibility. Supervisors in departments with higher RAE scores were perceived as slightly less accessible by doctoral students.

The question then becomes: why is there no strong evidence of a relationship between staff research and the quality of doctoral supervision? And why is a similar result found in both subjects?

The findings from interviews with doctoral students in Chemistry and in Education illustrate that research training structures have ‘Integrated’ and ‘Fragmented’ types. By ‘Integrative’ type, I mean that all the given conditions are working well. This suggests that both human and physical resources are adequate and well distributed; competition is constructive and there is no pressure on staff to publish. The ‘Fragmented’ type means that the ideal conditions are not met. This may happen when either human or physical resources are inadequate and especially when competition is destructively intense, such as considerable pressure to publish. This possible shortage of staff and resources leads to highly competitive applications for funding, severe competition for academic reputation and heavy pressure to publish upon academic staff.

The current situation in the UK means that the RAE places immense pressure on staff in almost every aspect and regardless of subject area. Such competition tends to be even more severe among departments with higher RAE scores than among those with lower RAE scores. It is more difficult to stand out among institutions with higher RAE scores. To maintain its research reputation, departments with higher RAE scores come under more pressure to compete with opponents who also obtain high RAE scores.

Therefore, it could be because of the higher pressure for publication and fierce competition for research resources among departments with higher RAE scores that those departments drift towards a more fragmented type of supervision. As a result, doctoral supervision is not perceived more favourably in departments with higher RAE rankings.

In Education, poor and highly pressurised conditions could distract academics from their supervision of students. PhD students in those departments were more likely to feel that they had been too much left on their own.

In Chemistry, under conditions which were quite pressurised, supervisors could take too dominant a role in the oversight of projects carried out by doctoral students. There was a risk that students could feel as if they were little more than their supervisors’ unpaid lab assistants.

This study could identify few RAE-related benefits for doctoral supervision. It is necessary, therefore, to develop a better way to avoid fragmentation and to promote both research and teaching at doctoral level. Findings about the relationship between research and teaching can be skewed when staff perceptions alone are taken into account. There is a strong need for research in this area to be directly derived from the experiences, perceptions and subsequent performance of doctoral students.
Book Review

Teaching at University
A Guide for Postgraduates and Researchers
Kate Morss and Rowena Murray
SAGE, 2005

*Miesbeth Knottenbelt invited three experienced tutors to discuss the book ...*

The book promises ‘to provide [postgraduates and researchers] with the basic skills required to enter those first lectures, tutorials, lab-sessions and assessments with confidence.’ It introduces key ideas on teaching and learning in higher education (such as ‘experiential learning’, ‘constructivism’, different student learning styles; and other basic notions underlying course design), followed by chapters about different areas of teaching activity (including lecturing, tutoring, demonstrating in the lab, facilitating an electronic forum; marking and commenting; and supervising undergraduate projects), that are presented autonomously and are easy to dip in and out of.

Each chapter ends with ideas about how you might document developing teaching expertise in each of these areas of activity (the questions you might ask yourself, the type of material to collect), and these ideas are summarised in a final chapter on ‘Feedback on your teaching and CPD’. The book also contains a chapter on ‘Programme validation and module management; quality assurance and all that’, which provides a description of the processes and key principles.

I invited three relatively experienced tutors from different parts of the University to review the book and we came together to discuss it. Although each seemed to have a different take on various aspects of the book, there was widespread agreement to recommend it as a book that had provided some really good ideas that they planned to put into action straight away; but also as a book they most certainly saw themselves referring to in future, and which would become a valued acquisition.

**Role boundaries**

The differences of opinion on certain aspects of the book seemed to be related to the role these tutors have in their local contexts, and much of our discussion was about the boundaries of their roles. I concluded that much of the book (though in some chapters this was more explicit than in others), was about enabling tutors and demonstrators to define the boundaries of their local roles for themselves in each of these areas of activity – something that is taken by the authors as an essential ingredient for approaching their tasks with confidence. Hence also the ‘health warnings’ that litter the book generously, for example, in the chapter on tutorial teaching: ‘This is perhaps the most complex form of teaching. Only take this on if you have developed the skills, knowledge and confidence for managing…’ (p.63). And in the chapter on assessment: ‘[This] is a major responsibility. Don’t get out of your depth. Make sure you get all the information you need. Ask. Ask. Ask.’ (p.132).

As for these tutors’ different reactions to the book: ‘Too much of a focus on design, I don’t do things like that.’, was the verdict of a tutor who teaches in a context where the learning outcomes of the course unit, the wider purpose of the tasks that are set for students; and the boundaries of students’ interactions with their tutors and demonstrators are clearly defined by their department and widely shared with both the tutors and students. For these tutors there is no need to get involved in ‘design’. They feel confident to carry out their tasks according to what has been agreed within this transparent framework. The ‘problem’ for these tutors is not deciding ‘what it is all for’, but deciding on ‘how you actually carry this out’. By contrast, for the other tutors, whose local context perhaps does not provide this bigger picture clearly or explicitly enough, ‘it clarified things, reminded me of what it was all for’. For them: ‘It was interesting to see that other side’.

**The bigger picture**

Contrary to what the book claims on its back cover, its focus is not on detailed processes (of ‘how to’). Instead, its key concern is with the bigger picture. In fact, both sets of tutors found some useful practical ideas in each chapter, while also recognising that the book pointed them to copious other sources that would provide them with lots more of this type of practical advice. However, they knew it would be unlikely that they would find the time to follow up all of these sources.

Additionally, all tutors agreed that the book provided them with ‘a very necessary reminder of that bigger
picture. The sort of thing that gets lost in the details, when you are busy doing things.’ It drew their attention to the importance of not getting bogged down in the detail of more specialised knowledge in their classes. It reminded them of the challenge of ‘getting the basics across’ to their students; and that they should spend their time checking this with their students and thinking about how to convey these basics.

For the same reasons, they also appreciated the theoretical frameworks to back up their teaching approaches. They ‘don’t get any of this theory anywhere else’, and said that it usefully challenged the pervasive belief that there ‘wasn’t anything to know’; and that ‘you will be fine; you know a lot more about the subject than your students.’ In a similar spirit, the book’s ‘lengthy explanations about why you might need to know this’, came across as ‘weird, how defensive the book is about these things. It’s obvious.’.

Collecting feedback and portfolio ideas

The tutors strongly agreed, although the idea was perhaps slightly newer to some, that the book provided lots of useful food for thought about collecting feedback on their teaching, reflecting on it and approaching it more systematically, perhaps by working it into some type of teaching log. ‘I always wondered what to do with feedback’, was one of the tutor’s comments to this chapter.

It emerged that the approach to and availability of formally collected feedback was very different in the different Schools in which they worked, and it was recognised that these processes would be easier for tutors working in a context where this material was routinely sent around in an accessible format, allowing everybody to check personal profiles against data about fellow teachers. Similarly, their engagement with the QA process (the subject of the last chapter in the book) was quite different for each tutor, and the book’s lengthy section on ‘Why do you need to read this chapter?’ came across quite differently.

Health warnings

To a tutor working in an environment where boundaries are quite clearly agreed, some of the health warnings ‘looked a bit silly’. Generally, though, there was agreement that they were a great feature of the book:

‘It removes the sense of guilt about not doing these things, even though you may know it is not really your job, you still feel a sense of obligation, that you should be able to cope with those tasks, even when no-one is actually asking you to do any of this.’

Supervising undergraduate project work?

Where they had involvement in project supervision, they were talking about a well-defined task, a one-off temporary particular support role, generally unpaid. (‘I only get to teach somebody a particular skill.’) These tutors agreed that a longer-term responsibility for a student’s project (as discussed in the book), would be uncomfortable and inappropriate for them at their stage. It was felt that apart from the time-commitment, it would be too close to home, as the issues (e.g. enforcing deadlines, responsibilities and boundaries) are all very live issues between them and their supervisors. It seemed clear that they identified with the project student, not with the ‘supervising postgraduate’. Once again, we went full-circle and the discussion ended up being about the demarcation of appropriate boundaries. For this last chapter on supervision, the agreement was that it was more appropriately addressed to someone in a more senior research contract. Similarly, the agreement was that the book as a whole was targeted at tutors and demonstrators with a bit more teaching experience, rather than new tutors/demonstrators, contrary to what it claimed on its backcover. However, they also agreed that:

‘It affords insight into what is to come. Good to read it now, to be aware of that. And then come back to it at a later point.’

Or, in other words, they saw it as a worthwhile reference text for tutors and demonstrators at all stages.
Forthcoming Events

At the University of Edinburgh

Thirteenth Annual Forum for Course Organisers
Organising & Managing Courses: Perspectives from Within and Beyond Edinburgh
Thursday 15 May 2008, 10.15-3.30
Paterson’s Land, Holyrood Campus
This forum will focus on the themes of Module Leadership, Supporting Tutors and Demonstrators, Using Digital Environments, and Valuing the Student Voice. For details and to register, see www.tla.ed.ac.uk/services/course-orgs/thirteenthforum.htm

Postgraduate Certificate in University Teaching
Developing my approach to teaching: 16 April 2008, repeated 17 Dec 2008
For details see www.tla.ac.uk/courses/PGCert/index.htm

TLA Learning and Teaching Forum:
A Festival of Feedback
Tuesday 17 June 2008, 10.00 - 2.30
Playfair Library, Old College
This forum will celebrate good practice in giving guidance and feedback to students on their work, with contributions invited from each School. It will feature a range of seminars, posters and discussions, and there will be a keynote lecture by Prof. Royce Sadler from Griffith University, Brisbane. For further details, see page 10.

Elsewhere

The Higher Education Academy Annual Conference: Transforming the Student Experience
1 - 3 July 2008, Harrogate
The sub themes for this conference are: Policy and Leadership; Student Feedback and Engagement; Learning and Teaching; Employment, Entrepreneurship and Recruitment; Internationalisation; Assessment.
www.heacademy.ac.uk/events/conference.htm

Improving Student Learning – Through the Curriculum
The 16th Improving Student Learning Symposium, University of Durham, 1–3 September 2008
The theme for this symposium – ‘through the curriculum’ – aims to challenge contributors to consider the role of course design in improving student learning in the ‘taught’ curriculum as well as the effects of the wider, ‘hidden’ curriculum.
www.brookes.ac.uk/services/ocsld/isl/isl2008/index.html

Society for Research into Higher Education Annual Conference 2008: Valuing Higher Education
9-11 December 2008, Liverpool
Society for Research into Higher Education Postgraduate and Newer Researchers Conference
8 December 2008, Liverpool
www.srhe.ac.uk

For the TLA Centre’s regular programme of events and activities and to register, see the TLA website at www.tla.ed.ac.uk