Monitoring students' experiences of assessment

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The Integrative Assessment Enhancement Theme Guides were written and compiled by **Professor Dai Hounsell, Dr Rui Xu and Miss Chun Ming Tai** in the Centre for Teaching, Learning and Assessment, University of Edinburgh, in consultation with a network of institutional contacts drawn from across Scottish universities, representatives of Higher Education Academy Subject Centres, and members of the Integrative Assessment Enhancement Theme Steering Committee. Thanks are due to the many colleagues within and outwith the UK whose initiatives, experiences and insights are reported in the Guides.

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Additional resources

For further information and additional resources, please look at Monitoring assessment on the Enhancement Themes website: www.enhancementthemes.ac.uk/themes/IntegrativeAssessment This contains a downloadable copy of this Guide, button links to the survey research questionnaires examined, and other research reports of attempts to monitor students' experiences of assessment.

Preface

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

The five elements of the framework are:

- a comprehensive programme of subject-level reviews undertaken by higher education institutions (HEIs) themselves; guidance on internal reviews is published by SFC (www.sfc.ac.uk)

- enhancement-led institutional review (ELIR), run by QAA Scotland (www.qaa.ac.uk/reviews/ELIR)

- improved forms of public information about quality; guidance on the information to be published by HEIs is provided by SFC (www.sfc.ac.uk)

- a greater voice for students in institutional quality systems, supported by a national development service - student participation in quality scotland (sparqs) (www.sparqs.org.uk)

- a national programme of Enhancement Themes aimed at developing and sharing good practice to enhance the student learning experience, facilitated by QAA Scotland (www.enhancementthemes.ac.uk).

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

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

Norman Sharp
Director, QAA Scotland

Monitoring students' experiences of assessment

Enhancement Themes Guides to Integrative Assessment, no 1

This Guide examines strategies to monitor how well assessment in its various manifestations is working, so as to build on strengths and take prompt remedial action where helpful. The Guide explores:

- **why** it is important to check how systematically we are monitoring our assessment practices
- **what** aspects of assessment are generally well monitored at present, and which have tended to be under monitored or rarely if ever looked at
- **how** to enhance our monitoring of assessment, choosing from a range of options.

Monitoring assessment in this systematic way, it is argued, is a key aspect of an **integrative** approach to enhancing assessment, ie one which brings the various strands of assessment together in a coherent way that addresses the desired goals and takes account of opportunities and constraints in the setting concerned.

The other three Guides in the **Integrative Assessment** series focus on *Balancing assessment* of *and assessment* for *learning, Managing assessment practices and procedures* and *Blending assignments and assessments for high-quality learning.* All four Guides can be freely downloaded from the Enhancement Themes website: www.enhancementthemes.ac.uk/themes/IntegrativeAssessment

Introduction

Assessing students' progress and performance is a complex process that involves many different elements. It encompasses assessment purposes and principles, content and methods, criteria and standards. It brings together various participants - students, teaching assistants and lecturers, assessors, administrators, secretarial and technical support staff, external examiners and professional accrediting bodies. And it has to be tailored to the distinctive requirements of a subject area, a level or year of study, the intended learning outcomes of the course unit or module concerned and the broader aims of the degree programme within which the unit or module is offered. Given the complexity of assessment, therefore, it is crucial to strive for an **integrative** approach to enhancing assessment. This entails bringing the various strands of assessment together in a coherent way that addresses the desired goals and takes account of opportunities and constraints in the setting concerned, whether that be a specific course or programme of study, or department or faculty, or university as a whole.

This Guide looks at one key aspect of integrative assessment: strategies to monitor how well assessment in its various manifestations is working, from the perspectives of the students being assessed. Assessment can thus be enhanced in a way that builds on achievements and strengths and enables prompt remedial action to be taken when improvement is called for.

Evaluating teaching, learning and assessment

In contemporary higher education, the regular evaluation of courses and teaching is widely seen both as a necessary component of quality assurance and quality enhancement (QAA 2003), and as an integral part of good professional practice (Hounsell 2003). It provides an indispensable feedback loop (Hounsell et al 2006b), alerting course teams and individual lecturers and tutors to those aspects of teaching, learning and assessment which are functioning well, and those where expectations of students and of staff have not yet been adequately met. For teaching staff in particular, it can also provide a second pair of eyes and ears, throwing light on how a course is perceived and experienced by the students at whom it is aimed. This is especially necessary given research evidence on the disparities between staff and student perceptions of what is ostensibly a common experience (see, for example, Stefani et al 1997; MacLellan 2001; Williams 2005; Carless 2006; Crook et al 2006).

While a wide range of methods and sources of feedback can be deployed (see, for example, Harvey 1998; Hounsell et al 1997) the approach to evaluating courses and teaching which is most commonly adopted involves the use of end-of-module student questionnaires. These are often combined with face-to-face discussion through a consultative body or liaison committee which brings together student and staff representatives. Further and more incidental sources of feedback (Hounsell 2003) include informal interchanges in practicals, tutorials or studio-based teaching and learning, the quality of students' assigned work and distributions of marks or grades, and meetings of exam boards.

In reviewing how the assessment dimension of courses and programmes is currently evaluated for this Guide, four tasks were undertaken. First, with the help of the Integrative Assessment Enhancement Theme's contact network, we surveyed and analysed a representative range of questionnaires drawn from across the Scottish higher education sector, including Heriot-Watt and The Robert Gordon Universities, the Universities of St Andrews, Strathclyde and Stirling, and Bell College, and discussed how these questionnaires were used.

Secondly, we looked at other questionnaires that have been developed for research purposes or for use in large-scale surveys, to identify what aspects of assessment they were concerned with and to what extent the questions they asked were similar to or different from those found in the sample of Scottish university questionnaires. The main research and survey questionnaires analysed were the following:

FAST   Questionnaires and other evaluation tools devised as part of the Formative Assessment in Science Teaching (FAST) Project.

ETLQ   The Experiences of Teaching and Learning Questionnaire (ETLQ), a questionnaire developed as part of a large-scale Economic and Social Research Council-funded study on Enhancing Teaching-Learning Environments in Undergraduate Courses.

NSSQ   The National Student Survey Questionnaire (NSSQ) developed to canvass the views of recent graduates from universities and colleges in England and Wales.

CEQ   The Course Experiences Questionnaire (CEQ), a well-established questionnaire used in both Australia and Britain and a forerunner of the NSSQ.

Assessment audit   A questionnaire devised by Professor Effie MacLellan at the University of Strathclyde to survey student and staff perceptions and experiences of assessment.

Thirdly, we undertook a search of the research literature on assessment to establish whether there were other important facets of contemporary assessment practices in universities and colleges that could be more systematically evaluated in courses or programmes of study. Fourthly, we conducted interviews with four groups of students from differing years of study at two Scottish higher education institutions about their experiences of assessment. This also yielded many helpful comments about how assessment was monitored that have been fed into the sections which follow.

How well is assessment currently monitored?

These four tasks revealed that, currently, a wide array of aspects of assessment are surveyed in student questionnaires and other evaluation tools, spanning how assessment is organised, what methods of assessment are used, the provision of guidance and feedback to students, and the design of strategies to monitor and evaluate assessment practices. However, as summarised in table 1, our review identified not only what features of assessment are usually well monitored, but also those which are often overlooked.

Table 1 Strengths and limitations in current surveying of students' assessment experiences

	What's usually surveyed well?	What's often overlooked?
Organisation and conduct of assessment	- Degree of difficulty. - Timing of assessment. - Assessment workload. - Modes of assessment, eg summative (assessment of learning), formative (assessment for learning) and diagnostic.	- Assessing large and diverse classes - factors arising from students' prior knowledge and capabilities - timing and responsiveness. - Change and innovation in assessment practices and procedures.
Assessment methods used	- Matching methods of assessment to course aims/intended learning outcomes. - Variety and blend of methods used. - Assessment that encourages and rewards high-quality learning. - Understanding of expectations, criteria and standards.	Students' experiences and perceptions of exams (including the balance between/weighting of exams and other kinds of assessment).
Guidance, support and feedback	- Quality and quantity of support. - Feedback provided to students - quantity and helpfulness of feedback - promptness of feedback - types of feedback given - influence of feedback on motivation and improvement.	- Assessing large and diverse classes [continued] - consistency of feedback and marking.
Design of monitoring strategies		Students' overall experiences of assessment, especially across course units, across subjects and over successive years of study.

Assessment in classes with large and diverse student intakes

For the most part, the course questionnaires sampled asked little of students by way of information about their backgrounds and prior knowledge of the subject concerned. Yet as higher education continues to grow and students become increasingly diverse, it becomes all the more important to ask such questions - not to pry unnecessarily, but to try and throw light on how effectively a course unit is working for the full spectrum of students enrolled. This would mean trying to tap into dimensions of students' backgrounds that might be a significant factor in how well they are coping, and analysing the resulting data in such a way as to check whether any of these factors might have been influential. For instance, a questionnaire finding that, overall, four out of five students found the pace of lectures 'about right' and the guidance on coursework assignments adequate to their needs would generally be welcome news, but less so if further analysis showed that most of the students who had responded less favourably were those from non-English-speaking backgrounds. Similarly, where a course unit recruited students with varying levels of prior knowledge of the subject (eg those with and without a Higher, A level, vocational or other qualification in the subject), it might be prudent to look at how the different groups fared in their pass rates and patterns of marks, and perhaps also at any differences in their perceptions of guidance and feedback.

A second challenge with large classes, especially in the first year, is that more informal ways of keeping tabs on how students are faring can be harder to sustain than in later years-not just because of class sizes, but also because responsibilities for supporting and assessing students are often spread across large and diverse course teams (Hounsell et al 2006a). Yet many of these students may still be struggling to find their feet at university and in need of prompt assistance in tackling assignments and assessments. In such course settings, the ubiquitous end-of-module questionnaire can come too late to trigger constructive action, and so fail to offer the responsiveness (QAA 2006) that is a hallmark of effective quality assurance and quality enhancement. Mid-semester mini-questionnaires or mechanisms to strengthen and coordinate informal and incidental feedback from tutors and lab demonstrators may be more effective.

Thirdly, where the various members of a large course team share responsibilities for marking and commenting on students' work, problems of consistency can arise (Peat et al 2005; Hounsell et al 2006a). This is often tackled by ensuring that the marking carried out by postgraduate and other part-time tutors, demonstrators or teaching assistants is overseen by mainstream lecturers or the module coordinator, as a check on the reliability of marks or grades. Much less common, however, is any systematic oversight of the feedback provided, whether to ensure that there are no large disparities in the quantity and quality of the comments made on students' work, or to coach inexperienced markers in the far-from-straightforward skills of giving feedback that is helpful and to the point.

Change and innovation in assessment

In recent years, approaches to assessment have been rapidly evolving in response to a variety of influences: fuller attention to students' grasp of know-how and know-why as well as know-what, the opportunities opened up by developments in information and communications technologies, a better understanding of assessment processes and challenges, and more generally, a greater readiness on the part of universities to reappraise established practices (Hounsell and McCulloch 1999; Bryan and Clegg 2006). This raises the issue of how well, if at all, the impact of such changes is being captured by evaluation questionnaires routinely used in course monitoring, and more especially given research evidence on students' experiences of innovative teaching and assessment. For example, Segers and Dochy (2001) question how well change in assessment is supported by concomitant changes in teaching practices, while Savin-Baden (2004), discussing problem-based learning, airs concerns about the converse - whether assessment has adapted to reflect this new approach to teaching and learning. Similarly, Hanrahan and Isaacs (2001) ask whether students have been provided with enough training and support to become accustomed to changed assessment, and McDowell and Sambell (1999), casting their net over a much wider shoal of innovative assessments, suggest that students' experiences merit more careful monitoring. They see many substantial benefits in innovative forms of assessment:

> Students appreciate assessment tasks which help them to develop knowledge, skills and abilities which they can take with them and use in other contexts such as in their subsequent careers. Assessment which incorporates elements of choice, perhaps about the topic for research or the method of approaching a development task, is also beneficial.
> It can give students a greater sense of ownership and personal involvement in the work and avoid the demotivating perception that they are simply going through routine tasks which have been done by many students before them. Collaboration with fellow students rather than working in isolation can also help to maintain student motivation and improve the quality of their learning as it opens up the possibilities for discussion, new ideas and varying approaches. Innovative assessment therefore has the potential to encourage students to take an interest in their studies, work hard, engage in genuine or deep learning and produce good outcomes which will have long-lasting benefits.
>
> (McDowell and Sambell 1999)

However, these findings also surface many of the potential pitfalls in introducing innovations in assessment, including, for instance, students' motivation to deal with challenging tasks and competing demands upon their time from other assignments. They therefore suggest that 'although students may find what they are doing interesting, we all tend to need the additional push of a deadline to meet to help us focus and find our way through competing pressure on our time' (McDowell and Sambell 1999). Another potential issue is that it seems 'generally much easier to develop assessment tasks which are valuable learning tools and which motivate students than to mark or grade such tasks fairly and accurately' (McDowell and Sambell 1999). Attention to how and why students' work was awarded a certain mark is consequently essential.

Exam experiences in course units

Since most evaluation questionnaires are distributed in, or close to, the last teaching session in a course unit, it should not be surprising to learn that they typically do not ask students about their experiences of exams, which would not at that point have taken place. But what does seem puzzling - and was confirmed in our interviews with students - is why students' perceptions of exams should be so rarely inquired into, even in those universities and subject areas where exam marks continue to make up the largest overall weighting in calculating final grades, and are consequently considered to be a prime indicator of the quality of the students' learning.

A more integrative approach to monitoring assessment would seek a means of closing that gap - but how? Students might well not relish delaying their departure from an exam hall to answer further questions, however brief or to the point, or feel that the experience is too fresh and immediate to be reappraised. The most feasible strategy may therefore be to survey them in the following semester or academic year, viewing the opportunity this could offer of 'recollection in tranquillity' as a boon rather than a drawback. Ideally, they should be invited to reflect not just on the exams, but also on the contribution of the exams to the blend of assignments and assessments across the course unit. Yet pragmatically, even a short questionnaire may be unwelcome: better options might be a round-robin email seeking open-ended comments, or focus group discussions over coffee with a sub-set of past course participants. An emphasis on feedforward rather than feedback may also be more likely to engage students' interest, eg asking them what suggestions they would like to make about the next round of exams in the light of their experiences in the preceding semester or year.

Assessment experiences overall

The suggestion just made has the potential to open up a dimension of students' experiences that falls outside the scope of most evaluation questionnaires, which typically focus on a specific module or course unit. It offers a reminder that, as a consequence of this restricted scope, there may be little or no opportunity for students to reflect on their experiences overall and in the round, ie across course units, across and between subjects, and across and between successive years of study. Yet the experience of higher education, for students, is precisely of this kind: not of compartmentalised units of curriculum, but of a confluence of courses and subjects.

A truly integrative approach to monitoring and enhancing assessment would seek to make good this oversight, and to capitalise on the insights that students can offer. As the students interviewed for this Guide commented, in progressing from year to year of a degree programme, they develop an increasingly rich appreciation of the extent to which the different ways in which they have been assessed seem to interrelate, complement and build on one another. Equally crucially, they are well placed (better placed than most staff, it can be argued) to draw comparisons and contrasts between subject areas and disciplines - even to the extent of pointing to assessment practices in cognate subject areas that might fruitfully be learnt from.

Strategies for better monitoring of assessment

The review undertaken for this Guide has highlighted where current assessment practices seem generally well monitored, and what aspects have often been overlooked. What follows below is a set of suggestions to be considered in monitoring assessment in a more integrated way. It is not a counsel of perfection, for to take up more than a few of these suggestions at one and the same time would be impractical. What programme coordinators, module directors and course team leaders can realistically do is to pursue those options that would best meet their needs, and those of their students, at a given point in time.

1 Plug gaps in monitoring students' experiences

eg ask students about:

- their experiences of exams and tests
- the consistency of feedback and marking
- the weighting of different kinds of assessment
- how different types of assessment compare with one another
- any other aspects of assessment normally overlooked.

2 Tap into their wider assessment experiences

eg ask questions about:

- their experiences across modules/course units
- their experiences across different years/levels of study
- their experiences across different subject areas.

3 Combine questionnaires with other methods

eg explore students' experiences and perceptions via:

- focus group interviews
- an open forum to which students are invited
- web-boards or virtual learning environments which invite students' comments and suggestions.

4 Focus in on changes in assessment practices or procedures

eg ask students to comment:

- where procedures change (for instance, a new marking scheme is adopted)
- when a new method of assessment is introduced (for example, when oral presentations or portfolios are introduced).

5 Ask different kinds of questions

eg:

- what one thing would really improve how your work as a student is assessed?
- which aspects of assessment seem to work really well/less well/could be improved?

6 Rethink when to ask students for their views

eg:

- carry out a brief survey mid-term or mid-semester, while there is still time to address major concerns raised by these students
- once students have been given feedback on their coursework by their tutors, invite comments on its helpfulness to them.

7 Review what background information you ask of students

eg to enable you to relate differences in students' perceptions to whether

- they have studied the subject before, and how well they did
- they are likely to take further courses in the future
- they live on/off campus
- they have a job in term-time
- they come from an English-speaking background.

8 Focus in on areas of known student concern

eg where past evaluations have indicated student discontent with the provision of guidance and feedback, make use of items from existing resources, such as the FAST inventory, Weaver's (2006) questionnaire, or a typology of potential trouble spots in guidance and feedback (Hounsell et al 2006b), to probe the issue more searchingly.

9 Survey staff as well as student experiences and perceptions of assessment

particularly where teaching and assessment responsibilities are spread across a large and diverse course team (eg mainstream lecturers, postgraduate teaching assistants, part-time tutors or demonstrators).

Balancing
assessment *of* and
assessment *for* learning

Contents

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Additional resources

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Balancing assessment *of* and assessment *for* learning

Enhancement Themes Guides to Integrative Assessment, no 2

This Guide discusses ways of striking an optimal balance between the twin central functions of assessment, ie to evaluate and certify students' performance or achievement, and to assist students in fulfilling their fullest potential as learners. Balancing assessment *of* and assessment *for* learning well, it is argued, is a key aspect of an **integrative** approach to enhancing assessment, ie one which brings the many and various strands of assessment together in a coherent way that addresses the desired goals and takes account of opportunities and constraints in the setting concerned.

The other three Guides in the **Integrative Assessment** series focus on *Blending assignments and assessments for high-quality learning, Managing assessment practices and procedures,* and *Monitoring students' experiences of assessment.* All four Guides can be freely downloaded from the Enhancement Themes website: www.enhancementthemes.ac.uk/themes/IntegrativeAssessment

Introduction

Assessment, as David Boud (2000) has observed, has to do 'double duty' - and on many fronts. It is called upon to be rigorous but not exclusive, to be authentic yet reliable, to be exacting while also being fair and equitable, to adhere to long-established standards but to reflect and adapt to contemporary needs, and at one and the same time to accommodate the expectations not only of academics, their students and the university in which both are engaged, but also of government and government bodies - Scottish, UK and European - employers, professional and accrediting organisations, subject and disciplinary associations, parents and the public at large.

Of the various tall orders it confronts, however, probably the most challenging is to mediate between the needs and requirements of assessment *of* learning (often called summative assessment), and assessment *for* learning (or formative assessment). Striking an appropriate balance between these uneasy twins is especially tricky because what aids the former may be deleterious to the latter, and vice versa. Some imbalances arise because assessment *for* and *of* learning are too weakly interconnected. One frequently observed side-effect is **low-energy feedback**: the scales have tipped towards assessment of learning, with too great an emphasis on procedures for end-of-course grading and certifying of students' performance, and a concomitant undervaluing of, or under-investment in, feedback on the part of staff. There may well be some opportunities for students to gain practice in tasks on which they will later be formally assessed, but feedback is too sparse, too low in nutrients, or comes too late, to benefit the quality of their learning significantly (see for example Higgins et al 2002; Yorke 2001; Gibbs 2006).

Another side-effect can flow from a **disjunction** between the aspirations and intentions embodied in a course design and what is actually rewarded in end-of-course assessments (Rowntree 1987; Gibbs 1999). Thus, for instance, while everyday learning-teaching activities might involve students gaining expertise in working collaboratively in teams, tracking down relevant research findings, and giving oral presentations, these advances in their learning are unlikely to be consolidated if grades are calculated predominantly on performance in unseen exams in which none of these newly honed capabilities can be deployed. No less critically, students may find themselves confronting summative, end-of-course assessment in a particular form (for instance, short-answer or multiple-choice questions) that had featured seldom if at all in their day-to-day learning in that course unit, and on which there would be little or no post-exam feedback.

But imbalances can also occur where assessment *for* and *of* learning have been too tightly, rather than too loosely, interwoven. This too can have unwelcome, if unintended consequences. One is a fractionalisation of assessment, which arises from the conviction that students will neglect, or put too little effort into, assigned work unless it carries marks. Over time, as marks get attached to an ever-widening pool of study activities, the weighting of any one task becomes smaller and smaller. Since everything seems to count, everything matters a little, but little matters a lot. Staff can find themselves with an unmanageable marking load, administrators have to run systems that count innumerable piles of small change, and students may feel pressed to turn out and turn in the latest of their set work requirements, rather than necessarily doing it well or trying to learn from it.

A second unintended consequence of over-tautness between assessment *for* and *of* learning can be **premature testing**, where students are graded on relatively unfamiliar tasks before they have had an opportunity to gain sufficient practice and confidence in doing them (Hounsell et al 2006; QAA 2006). This may occur particularly in modularised and semesterised curricula where course units run over a shorter span of weeks than hitherto, with the consequent risk of shrinking opportunities for students to try their hand at an unfamiliar task, learn from feedback on it, and practise it afresh, before being formally assessed on it (see, for example, Gibbs 2006). It can also arise where assumptions are made about what kinds of assignments students will have experienced and learnt to do well at in previous course units, in a situation where the sheer range of course combinations students can opt for would make any such assumption precarious.
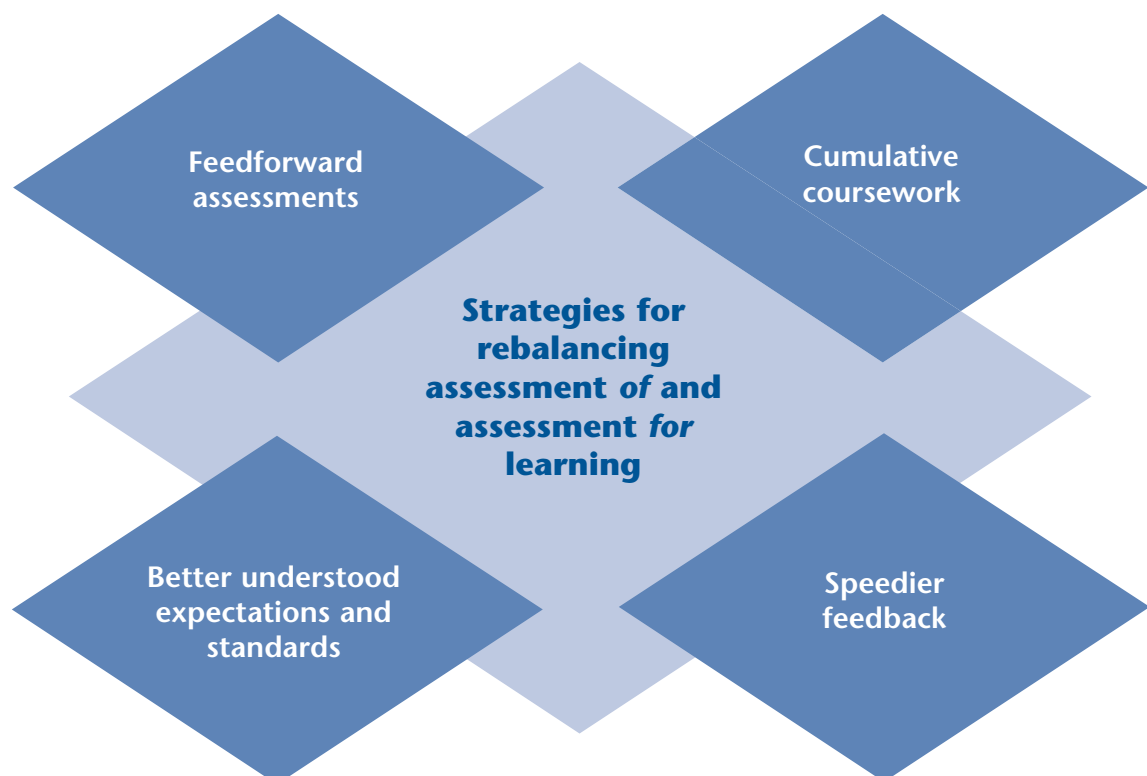
Thirdly, there is **loss of focus**, which can also result when the twin functions of assessment are too tightly interlaced, as may occur in peer assessment for which there has been insufficient groundwork, or where what is being asked of students is too daunting. For example, if students experience great discomfort at being put in the position of having to mark - and possibly **mark down** - their fellow students, these feelings of unease can overwhelm whatever potential the activity might offer for the students to derive greater insight into what represents good-quality work in the subject. A similar consequence can arise where students are uncertain or confused about what criteria to apply, or about how to apply the criteria provided (eg in assessing the individual contributions of their peers to a group project).

The present guide is concerned with how to avoid - or at least minimise - imbalances such as these, to meet the wider goal of integrative assessment. This is particularly necessary since the risks of imbalances arising between assessment *of* and *for* learning seem to have increased in recent years, and usually to the detriment of assessment *for* learning (see, for example, Knight 2006; Yorke 2001). A variety of reasons can be adduced: not only modularisation but squeezed resources, growing student diversity, and anxieties about internet-fuelled plagiarism and cheating have all been said to contribute. Yet it also needs to be acknowledged that there have been other striking developments which can help to provide a counterweight, and from three broad sources. First, the contemporary revolution in information and communications technologies (ICT) has brought in its wake some new possibilities which can enhance assessment for learning while also benefiting the summative outcomes achieved by students. Secondly, new research into educational assessment, combined with efforts to synthesise and reappraise a large and diffuse body of research findings, has yielded compelling evidence of gains in the quality of learning associated with well-designed formative assessment (see, for example, Black and Wiliam 1998; Black et al 2003; Nicol and Macfarlane-Dick 2006). Thirdly, initiatives by university teachers to rethink and recraft how they go about assessing their students have generated new ways of interweaving assessment for and assessment of learning.

This Guide aims to survey these new possibilities. To that end, a very wide-ranging search has been undertaken of the literature relevant to rebalancing assessment; samples of students in two Scottish higher education institutions have been interviewed; and the Integrative Assessment Enhancement Theme network of contacts and advisers has been consulted to track down and document examples from within as well as outwith the Scottish higher education sector. The wealth of initiatives the guide draws upon runs across the full subject range and benefits from similar efforts in Australia and the Far East (James et al 2002; Carless et al 2006). The four strategies identified are summarised in Figure 1.

Figure 1 Strategies for rebalancing assessment *of* and assessment *for* learning

Feedforward assessments

Cumulative coursework

Strategies for rebalancing assessment *of* and assessment *for* learning

Better understood expectations and standards

Speedier feedback

Strategies for rebalancing assessment

Feedforward assessments

This strategy aims to improve the balance between assessment *for* and assessment *of* learning by interlinking the twin functions more directly, yet not confounding them. In traditional approaches to assessment, coursework assignments are often relatively self-contained, with feedback in the form of a mark and comments following on later. Indeed, by the time the work is returned to students, it can seem to them as though the feedback has passed its use-by date, with little or no relevance to the subsequent work they have now become engaged in. Where the assignment mark formally counts towards their final grade, feedback can seem 'beside the point', since no amount of diligent attention to the tutor's comments will alter the mark given.

What this particular strategy seeks to do is to convert feedback into feedforward, by interconnecting assignment and assessment tasks and creating a recursive cycle, or 'feedback loop' (QAA 2006), in which feedback comments on one task, draft or set of questions can be fed directly into a subsequent task or draft, or will aid preparation for an exam. As the case examples below illustrate, students therefore have the opportunity for 'low-stakes' practice on assessable work, and to benefit directly from the feedback in a way that can also contribute to a subsequent formal mark or grade.

A lecturer at Napier University has used Peer Feedback Marking (PFM) in her three trials of peer assessment with biology and psychology undergraduates. First, criteria were agreed between students and teachers; secondly, peer reviews took place after the first draft according to previously agreed criteria; finally, a reflective statement on their experiences of PFM was submitted by each student. Most students rated the scheme as useful, and identified a variety of benefits.

Falchikov N (2002) 'Unpacking' peer assessment, in Schwartz P and Webb G (eds) *Assessment: Case Studies, Experience and Practice from Higher Education*, London: Kogan Page, pp 70-135

Cindy McCreery has reported her attempts to refashion history coursework at Sydney University to help first-year students to improve their essay-writing abilities. Two separate assignments, an analysis of a journal article and a long essay, were replaced with a three-stage essay assignment comprising a draft essay plan, a bibliography and final version of the essay, interleaved with group discussion. To aid this process, tutorials were refocused and students joined a tutorial group for the particular essay topic they had chosen.

McCreery C (2005) Less is more: rethinking assessment in a first-year history unit, *Synergy,* no 22 www.itl.usyd.edu.au/synergy/article.cfm?articleID=265 (last accessed 18 December 2006)

In the Hong Kong Institute of Education, a single substantial assignment was turned into six more-manageable, small assignments, forming a cycle that followed the phases learning/assessing/relearning. The initiative proved beneficial in scaffolding students' understanding and enabling them to consolidate what they had learned.

Yu F Y Y (2006) Staged assessment and feedback, in Carless D et al (eds) *How Assessment Supports Learning: Learning-Oriented Assessment in Action*, Section 3.37, Hong Kong: Hong Kong University Press www.hkupress.org/asp/bookinfo.asp?PD_NUM=9622098231 (last accessed 18 December 2006)

A progressive process for writing an assigned research paper has been introduced in the Sociology and Criminology Department at St Mary's University in Canada. It follows the stages first draft/feedback on first draft/final draft/marking. By creating a feedback loop, students have more time to reflect on and learn from constructive feedback within the context of their end-of-term assignments. In consequence, there has been a dramatic reduction in unintentional student plagiarism, while the pressure has lessened to produce work at the last minute.

Smythe D M (2006) Research paper assignments that prevent plagiarism, in Carless D et al (eds) *How Assessment Supports Learning: Learning-Oriented Assessment in Action*, Section 3.1, Hong Kong: Hong Kong University Press
www.hkupress.org/asp/bookinfo.asp?PD_NUM=9622098231 (last accessed 18 December 2006)

At the University of Sydney, a writing learning cycle was developed in first-year biology to emphasise the links between communicating through writing and understanding the biological concepts. The stages of the writing cycle involved: planning and preparation, in which students worked in groups to review examples of writing; individual writing up by students; a formative feedback from the teacher; and lastly, revision and submission for the final report for summative assessment. An online seminar was also used to support the process of writing.

Peat M, Franklin S and Taylor C (2005) Application of ICT to provide feedback to support learning in first-year science, in McLoughlin C and Taji A (eds) *Teaching in the Sciences: Learner-Centered Approaches*, Binghampton, New York: Food Products Press/Howarth Press, pp 157-175

In a psychology course at the University of St Andrews, the feedback given to students on an assignment was specifically designed to also help them to prepare for a final exam that included similarly styled questions. Furthermore, feedback was also available on their exam answers, so that that they could benefit from it in undertaking future modules.

Oram M (2003) Feedback on Essays and Examinations, *Enhancing Student Learning through Effective Formative Feedback: Student Enhanced Learning through Effective Feedback Project* online case study
www.heacademy.ac.uk/assessment/ASS025D_SENLEF_FeedbackonEssays.doc (last accessed 18 December 2006)

A series of formative assessment activities have been developed for a virtual learning environment in the School of Humanities at the University of Northumbria to create a structured space for students to practise and prepare for assessment independently before they are asked to submit similar assessed work. The virtual learning environment bridges the gap between learning in seminars and students' work on assessments in their own time.

Holland S and Arrowsmith A (2000) Practising Theory On-Line, *Assessment and the Expanded Text Project* online case study
www.english.heacademy.ac.uk/archive/publications/casestudies/practising.pdf (last accessed 18 December 2006)

In the Department of Nursing and Midwifery at Bell College, students were given opportunities to sit a sequence of formative tests to prepare them for both the content and format of exam situations. The rationale was to increase students' confidence as well as preparedness for exams through ongoing practice during term-time.

Dick J (1998) Combining Formative and Summative Assessment on a Continuous Basis, *Enhancing Student Learning through Effective Formative Feedback: Student Enhanced Learning through Effective Feedback Project* online case study
www.heacademy.ac.uk/assessment/ASS012D_SENLEF_CombiningFormativeSummative.doc (last accessed 18 December 2006)

Cumulative coursework

In this strategy, a better balance between assessment *for* and assessment *of* learning is achieved by introducing a form of coursework that is **cumulative**. In other words, rather than being prepared and submitted on a single occasion - as is typically the case with traditional essays and reports - the assignment evolves over the span of a semester or longer, and can therefore reflect and benefit from the student's evolving grasp of the subject matter and from ongoing feedback from tutors, fellow students or placement supervisors and work colleagues. Cumulative coursework of this kind can be in paper or electronic mode, and may take the form of a portfolio, log or workbook. Portfolios, which also have the advantage of being able to incorporate written and other materials of a wide variety of kinds, are probably the most widely found type of cumulative coursework, and there is a growing literature on their use for a range of purposes (see, for example, Young 1999; Klenowski 2002; Davies and LeMahieu 2003).

At the University of Newcastle, ePortfolios were piloted with undergraduate medical students during the 2003-04 academic year. The ePortfolios were integrated with online curricula and virtual learning environments to provide evidence on the achievement of learning outcomes, and to give the learner a personalised view of their accumulating assessment results.

Cotterill S, Bradley P and Hammond G (2006) EPortfolios: supporting assessment in complex educational environments, in Bryan C and Clegg K (eds) *Innovative Assessment in Higher Education*, London and New York: Routledge, pp 191-199

At Griffith University in Queensland, an online course portfolio was devised as the main assessment tool for the Graduate Certificate in Flexible Learning. This dynamic and cumulative form of assessment could be easily modified, built upon and restructured over the life of the course, and even beyond, and could make peer review easy to implement.

Bowie C, Joughin G, Taylor P, Young B and Zimitat C (2002) Portfolios from cyberia, in Schwartz P and Webb G (eds) *Assessment: Case Studies, Experience and Practice from Higher Education*, London: Kogan Page, pp 54-61

At the end of the semester, students following a course in Translation and Interpretation at the University of Hong Kong are required to submit a portfolio. The portfolio task consists of seven types of documents, which touch upon the main issues covered in the module, as evidence of their learning on the course. It provides students with a clearly structured framework for studying, helping them to become aware of what they know and where their weaknesses might lie as well as prompting them to work steadily.

Mak W H (2006) Using portfolio assessment to promote autonomous learning, in Carless D et al (eds) *How Assessment Supports Learning: Learning-Oriented Assessment in Action*, Section 3.27, Hong Kong: Hong Kong University Press
www.hkupress.org/asp/bookinfo.asp?PD_NUM=9622098231 (last accessed 18 December 2006)

A lecturer in the Department of Science and Technology Studies at University College London invited students in a final-year undergraduate course to carry out an independent research project under a shared theme. For the assessment, students wrote an essay, submitted all of their research records and materials, and sat an exam which tested their understanding of one another's work. The following year's cohort began their project with the previous cohort's research documentation and outputs.

Chang H (2005) Turning an undergraduate class into a professional research community, *Teaching in Higher Education*, 10.3, pp 387-394

At the University of Strathclyde, postgraduate students following the Energy Systems and the Environment programme in the Engineering Faculty were asked to present a group project as a web page in the form of a logbook. The project and the logbook then became a visible record of what students had done, what they had achieved and how they had achieved their outcomes. As a result, the students were able to present their work in a much more professional manner.

Stefani L (2002) Assessing reflection or supporting learning? in Schwartz P and Webb G (eds) *Assessment: Case Studies, Experience and Practice from Higher Education*, London: Kogan Page, pp 40-46

Better understood expectations and standards

It is increasingly recognised that if students are to attain high standards, it is essential that they develop a good grasp of what counts as high-quality work in a given subject and at a given level (Sadler 1989, 1998). But it is also becoming apparent that making explicit to students the criteria used to assess their progress and performance, valuable though that is, is not in itself enough to help students to come to hold 'a concept of quality roughly similar to that held by the teacher' (Sadler 1989).

An important development in rebalancing assessment has therefore been the emergence of initiatives to close this gap by more interactive briefing and training of students about assessment expectations and requirements. One prominent focus has been dialogue about assessment, but there have also been attempts to involve students in generating their own criteria for assessing an unfamiliar task, and to offer them training in evaluating their own and others' work.

A rather different path towards the same goal involves students in closer engagement with the work of their fellow students, seeking to nurture the evaluative 'connoisseurship' or acumen that is expected of experienced assessors and which comes not just from familiarity with marking criteria alone, but from first-hand experience in applying those criteria to a varied range of submitted assignments or assessments and arriving at considered judgements (Eraut 1995; Morgan 2004; Claxton 1995). One possibility is through discussion with students that is focused around 'exemplars' - that is, examples of very good and excellent assignments completed by past students. As Sadler himself observes, reflecting on the striking impact of such an experience on two of his students, 'exemplars convey messages that nothing else can' (Sadler 2002). Another possibility is through peer feedback, where students have opportunities to evaluate and comment on drafts or completed work by their fellow students (see, for example, Liu and Carless 2006; QAA 2006). Besides developing students' appreciation of what constitutes high standards in the subject on one or more assessment criteria, peer feedback has the further incidental benefit of enlarging the volume or range of comment that students might expect to receive on their work.

A workshop was developed for psychology students at three British universities (Liverpool, London Metropolitan and Aston) to help them to understand core assessment criteria. The workshop programme touched upon assessment criteria, assessment questions and structure, ways to develop an argument, use of evidence and evaluation, and approaches to applying criteria to one's own work.

Norton L, Harrington K, Elander J, Sinfield S, Lusher J, Reddy P, Aiyegbayo O and Pitt E (2005) Supporting students to improve their essay writing through assessment criteria-focused workshops, in Rust C (ed) *Diversity and Inclusivity*, Improving Student Learning Series, Oxford: Oxford Centre for Staff and Learning Development, pp 159-174

At Oxford Brookes University, an attempt was made to develop business students' understanding of assessment criteria and the assessment process through a structured intervention involving both tacit and explicit knowledge transfer methods. The tacit component entailed information that can be transferred through the use of exemplars and opportunities for practice and dialogue between staff and students, while the explicit component consisted of standards, levels and criteria for assessment in written format.

Rust C, Price M and O'Donovan B (2003) Improving students' learning by developing their understanding of assessment criteria and processes, *Assessment and Evaluation in Higher Education*, 28.2, pp 147-164

Three cases from Hong Kong Institute of Education covered the areas of fashion design, art education and primary teacher education. Each encouraged peer learning by using ICT for peer assessment and peer feedback.

Keppell M, Au E, Ma A and Chan C (2006) Peer learning and learning-oriented assessment in technology-enhanced environments, *Assessment and Evaluation in Higher Education*, 31.4, pp 453-464

In preparing a poster presentation, biology students at Staffordshire University were asked to generate marking criteria in discussion with their tutors, and subsequently to apply these criteria in completing their own posters and in providing written feedback on the posters prepared by their classmates. The task was designed to enhance students' ability to implement marking criteria in self and peer assessment, and tutors marked the posters only of those students with whom they had discussed marking criteria.

Orsmond P, Merry S and Reiling K (2002) The use of exemplars and formative feedback when using student-derived marking criteria in peer and self-assessment, *Assessment and Evaluation in Higher Education*, 27.4, pp 309- 323

Orsmond P, Merry S and Callaghan A (2004) Implementation of a formative assessment model incorporating peer and self-assessment, *Innovations in Education and Teaching International*, 41.3, pp 273-290

Sport studies students at St Martin's College were involved in an exercise where they used tutor-generated assessment criteria to evaluate their peers' work, but were also assessed by their tutors on the marking and feedback comments they had proposed for their fellow students. The initiative helped to promote more serious engagement with peer assessment.

Bloxham S and West A (2004) Understanding the rules of the game: marking peer assessment as a medium for developing students' conceptions of assessment, *Assessment and Evaluation in Higher Education*, 29.6, pp 721-733

First-year law students at the University of Hong Kong learn and practise how to apply a set of criteria for effective writing to their own and their classmates' assignments. Developed by the University's English Centre, the strategy was applied in a course which teaches the students how to draft legal problem answers, and so develops their skills in shaping and improving their own writing.

Bruce N (2006) Training students to peer and self-evaluate their writing, in Carless D et al (eds) *How Assessment Supports Learning: Learning-Oriented Assessment in Action,* Section 3.24, Hong Kong: Hong Kong University Press

www.hkupress.org/asp/bookinfo.asp?PD_NUM=9622098231 (last accessed 18 December 2006)

In the School of Bioscience at Queen's University Belfast, a survey revealed marked differences between students and staff in how undergraduate honours-level project work was perceived and understood. Establishing a climate of greater and more open dialogue was therefore seen as essential, and a one-day induction programme for students aimed to meet this need.

Stefani L, Tariq V-N, Heylings D J A and Butcher A C (1997) A comparison of tutor and student conceptions of undergraduate research project work, *Assessment and Evaluation in Higher Education*, 22.3, pp 271-288

In the part-time MA in Management Learning and Leadership at Lancaster University, course participants work in 'learning sets' (four to six learners plus a tutor) face to face or online. Assessment is highly participative: members of a set, in consultation with their tutor, advise one another on their assignments, read one another's completed work, and take part in a feedback and marking meeting for each other's assignments.

Hodgson V (2006) Participative assessment and the learners' experience, in Ashwin P (ed), *Changing Higher Education: The development of learning and teaching*, London: Routledge, pp 33-46 [see especially pp 39-41]

Speedier feedback

A fourth strategy for rebalancing assessment aims to increase the impact of feedback by speeding up its provision to and immediacy for students, and so more directly aid their subsequent performance in summative assessments. Such a strategy capitalises on the vital role that feedback has to play both in accelerating learning and in optimising the quality of what is learned, and thereby raising collective as well as individual attainment (Hounsell, in press). 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 both to review and test out their understanding, and to get constructive feedback on those items which they answer incorrectly. However, the last two case examples below (of initiatives at Hong Kong and Keele Universities) represent 'low-tech' forms of speedier feedback.

Students in a large first-year biology class at the University of Sydney were offered a variety of computer-based assessment opportunities. Within these programmes students could receive fast and direct feedback prior to summative testing.

Peat M and Franklin S (2002) Supporting student learning: the use of computer-based formative assessment modules, *British Journal of Educational Technology*, 33.5, pp 515-523

The Immediate Feedback Assessment Technique is a commercially available answer format for multiple-choice testing that can be used easily and conveniently with large classes. It was implemented in three psychology courses at Brock University in Canada, and received very positive reactions from the students.

DiBattista D, Mitterer J O and Gosse L (2004) Acceptance by undergraduates of the Immediate Feedback Assessment Technique for multiple-choice testing, *Teaching in Higher Education*, 9.1, pp 17-28

At the University of Bath, computer-aided assessment was used in first-year chemistry to offer students online feedback on test questions. Most students who had made use of formative feedback prior to the end-of-unit exam felt that their overall assessment performance had improved.

Price G (2006) Computer-aided assessment and formative feedback - can we enhance students' early experience at university? *Wavelength*, *Newsletter of the Higher Education Academy Physical Science Centre*, 2.1, 2006
www.physsci.heacademy.ac.uk/Publications/Newsletter/news2w1d.pdf (last accessed 18 December 2006)

At the Open University, a web-based assessment strategy was developed for the Maths for Science course to provide students with individualised and instantaneous feedback. Consequently, no hand-marking was required, and a 'tutor at their elbow' could be simulated for the students.

Ross S, Jordan S and Butcher P (2006) Online instantaneous and targeted feedback for remote learners, in Bryan C and Clegg K (eds) *Innovative Assessment in Higher Education*, London and New York: Routledge, pp 123-131

A book publisher's system, Mastering Physics (MP), was implemented in the School of Physics at the University of Sydney to deliver assignment/tutorial questions to students. The MP offers immediate feedback and marking to students, and reduces copying of assignments since all students must complete the assignment under their own login.

O'Byrne J (2006) The tutorial benefits of on-line assignments: Mastering Physics in first-year physics at the University of Sydney (A case study provided to the Integrative Enhancement Assessment Theme by the author)

Engineering and mathematics students at the University of Western Australia have the opportunity not only to tackle a long series of problems online during the semester, but also to obtain precise and detailed feedback about the errors in their answers. In addition, the software developed provides an integral 'forum' for students to ask questions and obtain answers from their tutors online. These answers are then seen by all students.

Scott N and Judd K (2002) Efficient continuous online assessment of large classes: continuous diagnostic assessment in engineering & mathematics subjects, *Assessing learning in Australian universities* online case
www.cshe.unimelb.edu.au/assessinglearning/04/case13.html (last accessed 18 December 2006)

At Oxford Brookes University, a weekly web-based multiple-choice question (MCQ) test was used in Introductory Chemistry to help the students to practise and get prepared for the final summative exam. The strategy was judged to reduce staff workload and increase student learning by providing instant feedback.

Grebenik P and Rust C (2002) IT to the rescue, in Schwartz P and Webb G (eds) *Assessment: Case Studies, Experience and Practice from Higher Education*, London: Kogan Page, pp 18-23

Law students at the University of Hong Kong are required to submit a solution to a hypothetical problem. Later that day, or as soon as possible afterwards, the same problem is discussed in a tutor-led discussion. The tutor then places an 'ideal' solution based on the discussion on the course website. This simple technique aims to mitigate the effects of lag-time by engaging students in a review of the coursework on a same-day or near same-day basis. Although there is no formal mark or individual written feedback (to minimise the effects on staff workloads), students can identify any errors and participate in the critical discussion leading to the ideal solution.

Glofcheski R (2006) Same-day feedback and analysis of assessed coursework, in Carless D et al (eds) *How Assessment Supports Learning: Learning-Oriented Assessment in Action*, Section 3.6, Hong Kong: Hong Kong University Press
www.hkupress.org/asp/bookinfo.asp?PD_NUM=9622098231 (last accessed 18 December 2006)

A lecturer in politics and international relations at Keele University put the two-hour tutorials at the centre of the assessment process to encourage greater 'active learning' by students. The 1,500-word essay and two-hour exam were replaced by 500-word 'briefing papers' expressing students' position on a given question prior to the tutorial concerned, a tutorial discussion of their papers, and a subsequent 500-word 'evaluation report' reviewing the tutorial discussion.

Macmillan J and Mclean M J (2005) Making first-year tutorials count, *Active Learning in Higher Education*, 6.2, pp 94-105

Blending assignments and assessments for high-quality learning

Contents

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The Integrative Assessment Enhancement Theme Guides were written and compiled by **Professor Dai Hounsell, Dr Rui Xu and Miss Chun Ming Tai** in the Centre for Teaching, Learning and Assessment, University of Edinburgh, in consultation with a network of institutional contacts drawn from across Scottish universities, representatives of Higher Education Academy Subject Centres, and members of the Integrative Assessment Enhancement Theme Steering Committee. Thanks are due to the many colleagues within and outwith the UK whose initiatives, experiences and insights are reported in the Guides.

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Additional resources

For further information and additional resources, please look at Monitoring assessment on the Enhancement Themes website: www.enhancementthemes.ac.uk/themes/IntegrativeAssessment This contains a downloadable copy of this Guide, button links to the survey research questionnaires examined, and other research reports of attempts to monitor students' experiences of assessment.

Blending assignments and assessments for high-quality learning

Enhancement Themes Guides to Integrative Assessment, no 3

The starting point for this Guide is why it might be important not only to assess students' progress and performance by a variety of means, but also to consider what combination or **blend** of assignments and assessments in a course or programme of study might be optimal. The Guide goes on to explore what considerations might shape how assignments and assessments can be blended, highlighting examples and case reports from a cross-section of subject areas and course settings.

Striving for an effective blend of assignments and assessments, it is suggested, is a key aspect of an **integrative** approach to assessment, ie one in which the many and various strands of assessment come together in a coherent way that addresses the desired goals.

The other three Guides in the **Integrative Assessment** series focus on *Monitoring students' experiences of assessment, Balancing assessment* of *and assessment* for *learning*, and *Managing assessment practices and procedures*. All four Guides can be freely downloaded from the Enhancement Themes website: www.enhancementthemes.ac.uk/themes/IntegrativeAssessment

Introduction

To modern eyes, how students were assessed a bare half-century ago may look rather limited and repetitive, perhaps even austere. Assessment then, could largely consist of a succession of relatively uniform essays or reports followed by a diet of end-of-year or final written exam papers, performance in which was the decisive determinant of students' progression to a subsequent year of study or, ultimately, of the class of degree with which they graduated. But the intervening years have seen a remarkable diversification of assessment, laying before present-day university teachers and their students a smörgåsbord of possible approaches to assessing students' progress and performance.

Although these approaches to assessment span the gamut of exams, tests and coursework assignments, they are at their most expansive in coursework, where even a decade ago it was possible to find documented examples of nearly one hundred different types and sub-types of assignments in Scottish higher education (Hounsell et al 1996; Hounsell 1998; Hounsell and McCulloch 1999), and a similar pattern of profusion in Australian universities (Nightingale et al 1996). Yet to focus only on assessment methods risks giving insufficient acknowledgement to the many dimensions of variation in assessment which underlie, or sit alongside, any particular method. Figure 1 attempts to convey the richness of these dimensions, by indicating the wide array of learning opportunities they can open up for students.

Figure 1 Assignments and the learning opportunities they offer

Emerging opportunities for students	Examples of assignments and assessment
● To learn how to communicate information and ideas in other than the written word, by presenting their work orally or in mixed-media form, in front of a 'live' audience of their tutor and fellow students.	Seminar, poster, video, video conferencing or other multimedia presentations.
● To develop a 'sense of audience', by gaining practice in how to communicate information and ideas to individuals and groups beyond their lecturers, tutors or fellow students.	Talks to school pupils learning the same subject; a report to a community on a project or initiative; a guide for the public.
● To gain experience of working on set questions and problems under pressure, but with more time to reflect or to consult notes and other resources, and/or less reliance on memory than under traditional exam conditions.	Take-home exams; open-book tests or exams; seen questions; taken-when-ready tests.
● To learn how to prepare for, plan, implement, analyse and report on a substantial inquiry, experiment, survey or investigation which pushes at the boundaries of their understanding within a subject area or discipline.	Major and extended projects or dissertations.

• To review in a systematic way how effectively they have learned, and so identify and remedy strengths, gaps and misconceptions in their knowledge and understanding.	Computer-based self-testing using multiple-choice questions and other forms of online tests.
• To acquire expertise, in carrying out everyday academic/study tasks, in the use of applications of information and communications technology (ICT) which have become well established in professional, commercial and industrial workplaces.	Spreadsheets; bibliographic and other databases; slide and poster design software; project planning; web design; online surveys.
• To become more accomplished at systematically documenting (and reviewing what can be learnt from) observations, experiences, reflections and insights when engaged in an ongoing task or activity.	Project, fieldwork, placement, studio or laboratory diaries; reflective logs; portfolios; workbooks.
• To develop skills in the progressive interchange, debate, reformulation and refinement of information and ideas online.	Contributions to a web/bulletin board or online forum, and comments on/responses to others' contributions.
• To become more adept within a subject area at writing in different forms, formats and 'genres', and mastering the distinctive requirements and conventions associated with these.	Designs or proposals; book reviews; case reports or case studies; web pages; journal articles; newspaper/ magazine/newsletter articles.
• To take a more active role in an aspect of assessment, and so enhance their capacity to review and apply criteria for assessment, to judge the quality of their own and others' work, to give constructive feedback, and to reflect on how that work might be improved in consequence.	Peer feedback on assignments; self-evaluation of a presentation; peer-generated criteria on a community project; peer-marked laboratory reports.
• To gain a better grasp of the benefits and challenges of working collaboratively and cooperatively, while also gaining insights into how others tackle questions, define problems, organise tasks, or communicate ideas.	Group problem-solving; joint book reviews; team presentations; role-plays; collaborative projects and exhibitions.
• To learn how to review, reorganise, polish and enhance ongoing work in response to periodic feedback from others (eg lecturers, tutors, student peers, experienced professionals, a sample audience).	Ongoing designs, proposals or plans; draft-and-revise assignments; dissertation chapters; patchwork texts.

As Figure 1 suggests, one of the benefits of that prodigious diversification of assessment lies in a greater freshness of challenge, helping to stretch and refine what today's students know, understand and are able to do. Another stems from greater alertness to what will be expected of these students in their working lives beyond graduation, as can be seen in efforts to devise and set tasks which both meet academic requirements and mirror the fast-evolving demands of the modern workplace and the pull-and-push of advances in information technology.

But there is another substantial benefit of diversification and one which is of most interest here. It enables consideration of how best to mix and match or blend assignments and assessments - ie selecting and combining options so as to achieve the best possible fit with contemporary goals, needs and circumstances in a given course and subject setting. In other words, blending of this kind is not just combining inputs or options, or mixing traditional and innovatory approaches - as it can mean in 'blended learning' (Mason 2005; Boyle 2005) - but doing so with particular purposes in mind.

In this Guide, four such purposes are explored:

- blending to achieve a high degree of match or **alignment** between approaches to assessment and the learning outcomes being pursued

- blending for **inclusivity**, aiming to address differing student needs and aspirations

- blending to promote and support **progression** in the evolution of students' understanding, skills and other capacities

- blending to weigh considerations of both **quality** and **economy**.

In the sections which follow, each of these purposes in blending assessments is examined more fully and, where appropriate, illustrated by examples from everyday practice in a range of subject areas.

Blending for alignment

In contemporary frameworks for course design and development, what typically occupies centre-stage is the identification of 'intended learning outcomes' (Otter 1992): what students know, understand or are able to do as a consequence of the set of learning activities and experiences represented by a module, course unit or programme of study. How these learning outcomes interconnect with assessment has been lucidly described by Norman Jackson (2000):

> Module outcomes predict the learning that students will have demonstrated when they have completed the curriculum unit. These learning outcomes relate directly to the assessment methods and criteria used to evaluate performance. Module outcomes are connected to academic standards through explicit assessment criteria and the evidence students provide of learning. Assessment criteria guide students on the quality of work expected in order to achieve the necessary standard and help academic staff to judge the extent to which the outcomes have been achieved. The actual standards of achievement are embodied in marks, grades and performance statements.
>
> (Jackson 2000)

One of the most influential models for thinking through an outcomes-based approach to course design is to be found in the work of John Biggs, and particularly in what Biggs calls **constructive alignment** (Biggs 1996, 2003). From this perspective, a course is viewed as a teaching-learning system which functions effectively when learning outcomes ('objectives' in Biggs' model) are of an appropriately high quality, and the key components or elements which make up the system - one of which is assessment - are working in close harmony with each other:

> In aligned teaching, there is maximum consistency throughout the system. The curriculum is stated in the form of clear objectives, which state the level of understanding required rather than simply a list of topics to be covered. The teaching methods are chosen that are likely to realise those objectives; you get students to do the things that the objectives nominate. Finally, the assessment tasks address the objectives, so that you can test to see if the students have learned what the objectives state they should be learning. All components in the system address the same agenda and support each other.
>
> (Biggs 2003)

Achieving a good degree of alignment between assessment strategies and intended learning outcomes, however, may not be straightforward, and especially since it is rare to start with a baggage-free hold. Whether the aim is to plan an assessment scheme for an entirely new course or to reconfigure assessment in a well-established one, there may be subject traditions to take heed of, faculty or university-wide practices to accord with, and perhaps also the expectations of a professional accrediting body to be accommodated. Any or all of these marker posts may be invoked by colleagues and peers in coming to a judgment about the appropriateness of a particular method of assessment in a given course setting.

These considerations notwithstanding, there are two broad arguments in favour of blending assignments and assessments to maximise goodness-of-fit with learning outcomes. The first of these is on grounds of **complexity**. Typically, any given course unit or module will set its sights not on one

learning outcome but on three or four (perhaps more), and it is extremely unlikely that a single means of assessment can be identified that would be equally well aligned with all of these learning outcomes (see, for example, Ramsden 2003; Newble 1998; Rust 2005). Take, by way of illustration, a course unit where the intended learning outcomes include analytical or interpretive skills on the one hand, and breadth of knowledge on the other. Coursework assignments such as mini-projects, case reports or reflective essays could be a fruitful means of nurturing the former, but would need to be combined with a rather different method of assessment (short-answer questions in an exam paper, say) in order to capture the latter.

The second and interrelated argument is on grounds of **complementarity**, and is underpinned by compelling evidence of the unintended consequences or 'backwash' effects of assessment on what and how students learn (Newble 1998; Boud 2000; Biggs 2003; Ramsden 2005). From this standpoint, it is crucial to consider not only what particular method or technique might be highly desirable in order to assess a given learning outcome, but also what less welcome side-effects it might have - and how these could be mitigated by blending the technique concerned with another that could act as a counterweight, offering complementary strengths and limitations. Evidence on the use of multiple-choice questions (MCQs) provides a good illustration. In research by Scouller (1998), for example, MCQs tended to be perceived by students as calling for relatively low-level learning outcomes and the adoption of a surface approach which favoured memorisation over understanding, while those students who had taken a deeper and more analytical approach in preparing for the MCQ exams actually performed less well. In the students' essay assignments, by contrast, a deep approach was much more likely to be seen as appropriate, and those who had used a surface approach did less well.

Another example is found in a report of efforts to introduce MCQs into the end-of-module examinations in undergraduate first-year economics (Reimann and Xu, 2005). It was envisaged that the new MCQs would sit alongside a series of short-answer questions (SAQs) which had featured in previous examination papers in the module. Concerns that the introduction of the MCQs might have a deleterious effect on the overall quality of the students' learning, however, were successfully addressed in two ways. First, there were efforts to review and strengthen the SAQs, with the aim of ensuring that these set the students appropriately challenging problem-solving tasks. Secondly, the students were systematically briefed and prepared for what the complementary assessments would entail.

Below is a range of other case examples of blending assessments for alignment.

A veterinary science teacher at the University of Sydney has used an innovative assessment task in a large neurophysiology class to encourage students to adopt deep approaches to learning. He modified the way students were assessed in the past (multiple choice and short answer questions) by introducing an open-book test with questions based on real-life situations, to change students' ways of learning and perceptions of what is 'really important' to learn. In consequence, learning outcomes improved for the whole class.

Taylor R, Using an open-book examination: Assessment methods for large classes, *Assessing Learning in Australian Universities* online materials
www.cshe.unimelb.edu.au/assessinglearning/04/case20.html (last accessed 18 December 2006)

In the MSc in Interprofessional Studies at the University of Wales Institute Cardiff, an aligned assessment strategy has been devised for a core module. Eschewing traditional methods of assessment, this novel assessment blend is based on a group task comprising a group portfolio, a joint presentation, an individual essay, and a peer review. Both students and external examiners have consistently evaluated the learning and assessment as valuable and tailored to students' needs.

Connor C (2005) An aligned assessment to promote learning about collaboration between health and care professionals, *Learning and Teaching in Higher Education*, 1, pp 98-101

In developing a new degree programme in healthcare at the Hong Kong Polytechnic University, the concern was to move away from the assumption (prevalent in the existing diploma course) that students were firmly wedded to spoon-feeding and regurgitation. The new curriculum design followed a more student-centred strategy that emphasised independent learning and fostered a search for meaning and understanding, and both teaching-learning and assessment strategies were extensively modified to seek greater alignment. The blend of assessment devised for the new programme aimed to make less use of written, knowledge-based tests and exams, putting the accent on more varied forms of coursework that would also yield better feedback. Empirical evidence is presented of a shift in the students' approaches to studying.

McKay J and Kember D (1997) Spoon feeding leads to regurgitation: a better diet can result in more digestible outcomes, *Higher Educational Research and Development*, 16.1, pp 55-67

The Course for History Implementation Consortium (Chic) project worked with 14 UK history departments as well as with departments of design, English, health and religious studies to support collaborative, inclusive learning which integrated online and face-to-face delivery. An important focus of the Chic project was the use of ICT to help align assessment as well as teaching and learning, with the aim of promoting students' critical use, understanding and application of source materials.

Hall R (2002) Aligning learning, teaching and assessment using the web: an evaluation of pedagogic approaches, *British Journal of Educational Technology*, 33.2, pp 149-158

A book chapter by Karen Hinett includes a discussion of specimen assessment schedules devised in the School of Law at Brighton University. The schedules provide a means of mapping a range of types and forms of coursework and examinations against the intended learning outcomes of the course units offered.

Hinett K (2002) Diversifying assessment and developing judgement in legal education, in Burridge R et al (eds), *Effective Teaching and Learning in Law*, London: Kogan Page, pp 60-61

The Odense University College of Engineering has begun a revision of all curricula, focusing on the principle that all curricula should foster deep approaches to studying and provide students with opportunities for active learning. Assessment is perceived as having a key role to play. All teaching-learning and assessment activities must be aligned with the course aims.

Kirstensen H and Sorensen B (2004) An example of how assessment relates to practice when student learning is the main principle for creating curricula, *European Journal of Engineering Education*, 29.2, pp 203-209

At Griffith University's Gold Coast campus, assessment in a large-enrolment introductory marketing course was redesigned to give greater emphasis to conceptual understanding and generic skills. Greater alignment was achieved through a combination of ongoing progress tests, a multi-phase team project and a final exam.

Harrison-Hill T (2001) The use of feedback in the organisation of a large class, *Teaching Large Classes: Case Studies*, Australian Universities Teaching Committee Project, Teaching and Development Institute, University of Queensland

www.tedi.uq.edu.au/largeclasses/pdfs/CaseStudy-11_Hill2.pdf (last accessed 18 December 2006)

As part of a final-year research project in the Department of Biosciences at the University of Kent, students not only carry out an extended study 'on a topical, controversial or poorly understood area of science', but now also prepare for and communicate their findings in local schools as part of National Science week. Schoolteachers contribute to the marking of the presentations, which are assessed alongside the written dissertations. The latter aims to ensure that the students achieve a depth of knowledge comparable to that of the more traditional laboratory-based project, while in the former they learn 'to communicate science effectively to a general audience'.

Lloyd D (2006) Final-year projects in science communication, *Centre for Bioscience Bulletin*, 18, p 11 www.bioscience.heacademy.ac.uk/ (last accessed 18 December 2006)

An illustration is given of how intended learning outcomes have been matched to teaching-learning and assessment activities in a course unit on Basic Clinical Skills in Medicine. This forms part of a wider discussion, informed by research findings, of the design of assessment strategies.

Newble D (1998) Assessment, in Jolly B and Rees L (eds), *Medical Education in the Millennium*, Oxford: Oxford University Press, pp 131-142

In the Faculty of Health and Human Sciences at Thames Valley University, a range of assessment methods were designed for a new nursing degree geared to problem-based learning (PBL). The assessment methods were chosen to be congruent with the PBL curriculum outcomes.

Young G and Marks-Maran D (2002) But they looked great on paper, in Schwartz P and Webb G (eds) *Assessment Case Studies, Experience and Practice from Higher Education*, London: Kogan Page, pp 106-113

Further illustrations of how a focus on high-quality learning outcomes were aligned to a blend of assessment methods can be found in *Learning to Teach in Higher Education*, (Ramsden 2003) with case examples presented from courses in anatomy, interior design, animal science, art history, social statistics and literary studies that feature at various points in the book.

Blending for greater inclusivity

The most recent research on alignment has highlighted an important student dimension which merits fuller consideration. Course design, it is suggested, needs to take account not only of how well assessment and teaching-learning approaches are aligned to learning outcomes, but also how well they are attuned to, or 'congruent' with, the backgrounds and aspirations of an increasingly diverse student population (Hounsell et al 2005). As far as integrative assessment is concerned, in other words, too great a reliance on particular forms or techniques of assessment, or the use of a relatively narrow range of these, can be more advantageous to some students than to others, and thus may be a potential source of inequity.

For example, many traditionally qualified students embark on undergraduate study already familiar with the kinds of task they will be expected to undertake in coursework, tests and exams (since they obtained a good A-level or Higher grade in the subject concerned and studied at a school with a long history of preparing students for university entry). Yet other students entering university by less conventional routes or from more disadvantaged backgrounds may have no such fund of experience to draw upon and so struggle to find their feet in their first year. Could an assessment scheme be considered fair if it had the effect of enabling the traditional entrants to shine without having to stretch themselves, while leaving the non-traditional entrants toiling to make up the gap between themselves and their peers? And what might be the consequences of an extended game of catch-up for the motivation and commitment of some non-traditional students?

In a similar vein, where for instance students' talents were most in evidence in teamwork or when they communicated what they had learned orally, an assessment scheme that rewarded only individual performance and written expression would not enable them to play to their strengths, while perhaps privileging those whose talents had the opposite profile. As is argued by Howard Gardner, well known for his seminal work at Harvard University on multiple intelligences, an assessment initiative that took account of contemporary research findings:

> should be sensitive to development stages and trajectories [..]; should recognize the existence of different intelligences and of diverse cognitive and stylistic profiles, and it should incorporate an awareness of these variations into assessments; it should possess an understanding of those features which characterise creative individuals in different domains.
> (Gardner 1999)

It is against the backdrop of considerations such as these that there have been growing attempts to blend assignments and assessments in ways that more directly address and engage with student diversity. Below are some case examples and initiatives which have been identified in the course of the Integrative Assessment project.

Two case studies are discussed - one from the humanities, the other from engineering - in which lecturers aimed to craft assessment strategies that could help to develop students' autonomy as learners, in a context of increasing student diversity. The approaches adopted made use of formative and summative self-evaluation activities, as well as providing students with opportunities to gain experience of assessing the work of their peers and giving feedback to one another.

Sambell K, McDowell L and Sambell A (2006) Supporting diverse students: developing learner autonomy via assessment, in Bryan C and Clegg K (eds) *Innovative Assessment in Higher Education*, London & New York: Routledge, pp 158-168

At Birkbeck College, the assessment approach followed in a new biological sciences module is tailored to the needs of the part-time students taking the module. The main goals have been to help to instil a steady pace of study and provide opportunities for focused revision and deep learning. The core element is computer-based assessment, but in combination with lab reports, short written tests and short question sets. The results of an evaluation of the assessment strategy suggest that it has succeeded in its goals.

Rayne R C and Baggott G K (2006) Using frequent computer-based assessment to 'set the pace' in a first-year bioscience module, in Stefani L, *Effective Use of IT: Guidance on Practice in the Biosciences*, The Higher Education Academy, Centre for Bioscience
www.bioscience.heacademy.ac.uk (last accessed 18 December 2006)

A flexible assessment system was introduced in a course in the Faculty of Business, Economics and Law, University of Queensland, to address concerns about failure rates, which were felt to be associated with the complexity of the course content and the diversity of the student body. The system adopted consisted of a compulsory final exam (60% at least), an optional mid-semester exam (25%) and five computer-managed learning exercises (15%). Students could choose from various combinations of one or more of the three forms of assessment, and their best score was used in allocating a grade.

Asafu-Adjaye J (2001) Flexible assessment in a business course, *Teaching Large Classes: Case Studies, no 2,* Australian Universities Teaching Committee project, University of Queensland
www.tedi.uq.edu.au/largeclasses/case_studies_frameset.html (last accessed 18 December 2006)

In the History Access Course at Trinity College Dublin, a set of 'hot potatoes' MCQs was developed and made available to students on the course's website using WebCT. The course leader, Dr Patrick Geoghegan, wanted to combine the existing assessment mix with a means by which the students could test themselves in a non-intimidating way that could be fun. The aim was to give the students confidence in their note-taking skills, while also enabling them to monitor their own progress without the assessment being formal and summative, as an assigned essay or unseen exam would be.

Geoghegan P M (2006) 'Hot potatoes' formative assessment, in *Every Student Matters' Activities for Engaging and Widening Participation in Higher Education: A Preliminary Collection*, Higher Education Academy Ireland
http://elearning-events.dit.ie/diversity/CaseStudy_results_list.asp?reference=12 (last accessed 18 December 2006)

An experienced biosciences lecturer at the University of New England in Armidale, New South Wales, reviews the range and mix of assessment methods that would be suitable for first-year undergraduate science courses with large and diverse student intakes, and suggests what guiding principles (including resource implications) should underpin choice 'from a multitude of options'.

Quinn F (2005) Assessing for learning in the crucial first year of university study in the sciences, in McLoughlin C and Taji A (eds), *Teaching in the Sciences: Learner-Centered Approaches*, New York, London, Oxford: Food Products Press/Haworth press, pp 177-197

The 'Towards Learning Creatively' project focuses on assisting lecturers in the area of hospitality, leisure, sport and tourism to develop a more diverse range of inclusive assessments that are better attuned to the needs of students with dyslexia. The project is a collaboration between Southampton Solent, Oxford Brookes and Bournemouth Universities.

Jackson C (2006) Towards inclusive assessment, *Educational Developments* (SEDA) 7.1, pp 19-21

In the Lifeplace Learning modules designed by the Department of General Academic and Professional Studies at Glasgow Caledonian University, assessment is entirely open and tailored to students' needs and interests. While students generally opt to demonstrate their achievements through well-established assessment methods such as essays and reports, these have been combined in some cases with videos, practical demonstrations, unseen tests, posters, project boards or oral presentations.

From a case description provided by Margaret Blair, Department of General Academic and Professional Studies, Glasgow Caledonian University
www.learningservices.gcal.ac.uk/cllc/index.html (last accessed 18 December 2006)

In a class of mixed-ability engineering students at the University of Hong Kong, fundamental concepts are taught fully in class, while higher-level content is noted. Students are encouraged to study the textbook for higher-level content, which is assessed in the 'bonus' section of a test, with questions structured so that students can actually learn as they address them. Further learning occurs when the bonus questions are discussed.

Chan H P and Mok Y F, 'Learning-through-assessment': assessment tasks that challenge more accomplished students, in Carless D, Joughin G, Liu N F et al, (eds) *How Assessment Supports Learning: Learning-Oriented Assessment in Action*, Hong Kong: Hong Kong University, pp 107-109

A case study describes the approach to assessment followed in an honours degree at the University of Northumbria where children and childhood are major themes for enquiry. The students concerned are non-traditional entrants with very varied prior learning experiences. A variety of assessment activities (especially of a formative kind) have been introduced to help the students to become more skilled at self-monitoring their academic work.

Sambell K, Miller S and Hodgson S (2002) Let's get the assessment to drive the learning, in Schwartz P and Webb G, *Assessment: Case Studies, Experience and Practice from Higher Education*, London: Kogan Page, pp 137-143

Blending to facilitate and promote progression

In *The Democratic Intellect*, George Davie reports the evidence given by Professor Buchanan in 1837 to the Scottish Universities Commission:

> Are you able to see a marked and sensible progress in the generality of students?' - Very marked and very delightful progress. Towards the end of the session, my duty becomes extremely pleasant. In the earlier months, they overcome what is difficult in acquiring habits of composition. One proof of the advantages of regular exercises (essays, etc) is that sometimes young men who have made no progress until February or March suddenly start forth and compete for the highest honours in the class.
>
> (cited in Davie 1961)

Nowadays, happily, undergraduate students are neither exclusively male nor necessarily young, but they may still struggle to acquire 'habits of composition' and their teachers continue to embrace the advantages of 'regular exercises'. Increasingly, however, assignments and assessments are being blended with the aim of facilitating and accelerating progression, ie so that it is proactively built-in. In other words, the intention is to combine assessments in ways that have the potential to assist students to learn more rapidly, or in greater depth or scope, than would otherwise be the case.

Two possible approaches to designing-in progression can be found in one of our companion guides, *Balancing assessment* of *and assessment* for *learning*. One approach is to give an added boost to the learning potential of an existing assignment or assessment through more active student involvement in generating or interpreting feedback comments. Another is to use feedforward to make a particular assessment more 'recursive', so that students have an opportunity to improve a draft or retake a test. But progression can also be fostered through combining different assignments or assessments, whether through blending within a particular course unit, or (as in the first of the case examples below) blending that extends across course units or years of study.

The School of Engineering and Technology at Deakin University provides an example of a carefully designed, strategic assessment regime that is well integrated with teaching and learning goals. In the first year, Dr Stuart Palmer has used assessment as a foundational tool to establish students' study habits and skills, while by the fourth year assessment tasks have evolved to reflect the world of professional practice and to allow students to demonstrate their integration of knowledge and skills. The careful weightings also underscore the value attached to particular assessment tasks.

Palmer S (2000) Authenticity in assessment: Reflecting professional practice, *Assessing Learning in Australian Universities* online material
www.cshe.unimelb.edu.au/assessinglearning (last accessed 18 December 2006)

At the University of Stirling, students following a Scottish Credit and Qualifications Framework level 7 course were given the opportunity to self-assess their submitted work, comparing their marking with that of their tutor and subsequently discussing the feedback on a one-to-one basis to ensure mutual understanding on the part of tutor and student around the learning and assessment process. This facilitated the development of self-assessment, critique and reflection.

Saich G, *360 Degree Feedback, Student Enhanced Learning through Effective Feedback* online case
www.heacademy.ac.uk/assessment/ASS047D_SENLEF_360Degree Feedback.doc (last accessed 18 December 2006)

In the Hong Kong Institute of Education, computer-supported teamwork has been used in a third-year Fashion Design module. The approach engages students with key issues in a subject over a period of time through online discussion, and provides them with experiences of social creativity. Peer assessment has also been used within the BlackBoard virtual learning environment, both within groups and among groups.

Ma W W A (2006) Assessing creative teamwork using ongoing peer critique, in Carless D, Joughin G, Liu N F et al (eds) *How Assessment Supports Learning: Learning-Oriented Assessment in Action*, Hong Kong: Hong Kong University press, pp 87-91

A team led by David Nicol at the University of Strathclyde is exploring how information and communications technology can support formative assessment processes and the development of self-regulation in large first-year classes. Two case studies are reported in this journal article. In one, a pilot study in a first-year psychology course, the online discussion tool WebCT is being used for supportive peer discussion of three set questions. A key design feature is that the questions become progressively more difficult, students proceed from an individual to a group response, and a model answer (but not tutor feedback) is provided at successive points. In the second example, in mechanical engineering, an electronic voting system (EVS) is integrated into teaching in a form that engages students in a continuous cycle of tests, feedback and retests while enabling the tutor to pinpoint and remedy significant areas of student misunderstanding.

Nicol D (in press) Laying a foundation for lifelong learning: case studies of technology-supported assessment in large first-year classes, *British Journal of Educational Technology*

In the School of Life Sciences at Keele University, second-year lectures on nerve, muscle and endocrine physiology included formative tests, on which students received feedback within 24 hours. This was followed up by weekly summative testing on the same material, but utilising a proportion of the same questions. Over a three-year period, students' reported study hours during the module increased significantly over their normal study time, and summative test scores were significantly higher. Students approved of the novel learning regime, but only when supported by lectures.

Chevins F (2004) Lectures replaced by prescribed reading with frequent assessment: enhanced student performance in animal physiology, *Bioscience Education Electronic Journal* www.bioscience.heacademy.ac.uk/journal/vol5/beej-5-1.htm (last accessed 18 December 2006)

At Northumbria University, a module on popular writing had been summatively assessed at the end of the second semester by means of an extended essay, but it was found that students were embarking on preparatory work on the extended essay too late, to the detriment of their learning. The module was therefore redesigned to include compilation of a reading dossier (which included notes made for and during seminars, as well as notes on primary and secondary reading), submitted alongside a draft essay proposal. Feedback and dialogue between tutor and student concerning the extended essay improved, and students gained fuller opportunities to practise and refine the thinking and analytical skills called for in the summative assessment.

McDowell L and colleagues (2005) Developmental assessment, in *Assessment for Learning. Current Practice Exemplars from the Centre for Excellence in Learning and Teaching*, MARCET, Northumbria University, Red Guides, no 11, p 8 www.northumbria.ac.uk/marcet/(last accessed 18 Decemeber 2006)

Blending for economy and quality

Finally, there is the challenge of squaring the quality/economy circle - that is, of weighing the desirable against the affordable and feasible. This has long been a familiar issue in higher education (see, for example, Anderson et al 2003) even though we often think of it as one that besets the modern university in particular. But in the case of assessment, it can reasonably be argued, there are contemporary considerations that come into play in devising an assessment blend that will optimally square the circle. Most obviously, declining unit resources combined with rising student numbers over the last two decades have brought a relative reduction in assigned coursework and opportunities for interaction in tutorials and practicals, combined with higher marking and commenting workloads for staff (DfES 2003; Hounsell, in press). Against this background, it becomes all the more important that every assignment and assessment that goes into the blend 'punches its weight': in other words, it contributes significantly either to the quality of learning or to economy of outlay, and any potential downsides can be offset by another ingredient in the blend. In some few happy instances, of which peer feedback is the most obvious example, there can be gains in quality without significant cost (Hounsell, in press).

Furthermore, each new possibility that opens up as a consequence of the diversification of assessment can have set-up as well as ongoing costs that need to be reckoned with. Computerised multiple-choice tests of the kind discussed earlier, for example, can offer considerable long-term savings in time and effort, especially for large-enrolment courses, but may be costly to devise and launch (see, for example, Gahan 2001; Quinn 2005). Conversely, extended projects or portfolio assignments may be quick and relatively straightforward to introduce, but then continue to call for individualised support, supervision and marking of a far from negligible kind.

And lastly, we also need to weigh carefully what the likely implications of a given assessment blend might be for students. What will be required of them, within what time-span and calling for what resources? What prior knowledge and skills will they be called upon to display and deploy? What support and feedback will they be able to take advantage of? And how can they expect to benefit, in terms of the advancement of their learning and their academic progress? These questions need to be addressed because in today's higher education, where many students have caring responsibilities and most are combining a part-time job with studying for a degree, it would be inappropriate to act as if blending assessment cost-effectively had significance only for staff and institutions.

Managing assessment practices and procedures

Contents

Additional resources

For further information and additional resources, please look at Monitoring assessment on the Enhancement Themes website: www.enhancementthemes.ac.uk/themes/IntegrativeAssessment This contains a downloadable copy of this Guide, button links to the survey research questionnaires examined, and other research reports of attempts to monitor students' experiences of assessment.

Managing assessment practices and procedures

Enhancement Themes Guides to Integrative Assessment, no 4

The effective management of assessment practices and procedures, this Guide argues, is fundamental to an **integrative** approach to enhancing assessment, ie one in which the many and various strands of assessment are brought together in a coherent way that addresses the desired goals and takes account of opportunities and constraints in the setting concerned. Yet while most dimensions of assessment are generally well-managed, there are also aspects which often have not received the weight of attention they seem to warrant in the contemporary higher education institution (HEI). These aspects are managing assessment *for* as well as assessment *of* learning; enabling evolutionary change in assessment; and wider sharing of responsibilities for managing assessment practices and processes.

The other three Guides in the **Integrative Assessment** series are concerned with *Monitoring students' experiences of assessment, Balancing assessment* of *and assessment* for *learning,* and *Blending assignments and assessments for high-quality learning.* All four Guides can be freely downloaded from the Enhancement Themes website: www.enhancementthemes.ac.uk/themes/IntegrativeAssessment

Introduction

There are many reasons why managing assessment effectively is not just important, but a necessity. Firstly, every HEI has to ensure that the assessment standards it sets engage with an intricate web of expectations and requirements - those of the subject areas or disciplines studied, those of the HEI itself and its ethos and goals as an institution, those of the wider HE system or sector, those of employers and professional and statutory bodies, and those of students and of the public at large. Secondly, each HEI has to be confident not only about what its standards are, but that there are mechanisms in place to ensure that the standards which have been set are pursued and sustained across all courses and programmes of study. Thirdly, an HEI has to assure itself that its assessment procedures and processes operate in ways that are (and are seen to be) just, equitable and consistent.

In Scotland and across the UK generally, considerable time and effort have been devoted by HEIs to addressing these imperatives - whether through, for example, frameworks of boards of examiners, marking schemes, policies on plagiarism, regulations for coursework and examinations, procedures for appeal, and many other structures and strategies for overseeing assessment. Yet while most dimensions of assessment are generally well-managed, there are also certain aspects which often have been overlooked or paid insufficient attention in the recent past, but which are increasingly important to the contemporary HEI. These aspects, this Guide suggests, are:

- recognising the need to manage assessment *for* as well as assessment *of* learning
- creating optimal conditions to support and sustain evolutionary change in assessment practices and procedures
- acknowledging that responsibilities for managing assessment practices are necessarily widely shared amongst those contributing directly and indirectly to assessing students' progress and performance - individual lecturers and course teams, boards and committees with oversight of assessment, middle and senior academic managers, and academic development and similar teaching-learning support units.

Managing assessment *for* and *of* learning

Balancing assessment for *and assessment* of *learning* is concerned with striking a better balance between assessment *of* and assessment *for* learning. Assessment *of* learning is 'summative', ie its main purpose is to grade and certify students' achievement, while assessment *for* learning is 'formative', aiming to support and advance students in their learning. A pervasive feature of contemporary assessment practices and procedures, however, is that the scales are tipped towards summative assessment *of* learning (see, for example, Harlen and James 1997; Gardner 1999; Black and Wiliam 2003; Gibbs 2006). This is cause for concern since the pursuit of high-quality learning entails not just setting the high standards which students are expected to attain, but creating the conditions which will enable them to meet those expectations. Indeed, the potentially powerful impact of well-designed formative assessment is evident in the conclusions of a comprehensive review of the international research literature by Paul Black and Dylan Wiliam:

> The research reported here shows conclusively that formative assessment does improve learning. The gains in achievement appear to be quite considerable, [...] among the largest ever reported for educational interventions.
>
> (Black and Wiliam 1998)

The relative undervaluing of assessment *for* learning also gives grounds for concern because survey evidence of student dissatisfaction with guidance and feedback is widespread and growing (see, for example, Maclellan 2001; QAA 2003; Hounsell 2003; Krause et al 2005; Hounsell et al 2005; Surridge 2006). For instance, an analysis of over 3,000 quality assessment visits noted that, across almost the entire subject range, the reviewers had 'found it necessary to comment on the failure of a significant number of institutions to provide adequate feedback on students' work' (QAA 2003). Yet even in the later round of visits, and despite indications that some headway had been made, the reviewers 'saw this as the area most in need of further consideration by institutions'. In Australian surveys, worrying levels of dissatisfaction with feedback - on the part of two out of five first-year students - have not improved over a 10-year period (Krause et al 2005). A survey of psychology departments by Crook, Gross and Dymott (2006) has identified a worrying gulf between the contentment of the staff with their formal and well-ordered procedures for managing assessment and student unease that how the process was conducted failed to meet their needs for clarity about what was expected of them in their assessed work.

Against this background, exploring new strategies for enhancing assessment *for* learning of the kind outlined in *Balancing assessment* for *and assessment* of *learning* is of crucial importance. However, efforts to enhance practices at the module or course unit level may in themselves not suffice (Knight, 2000). They need to be accompanied by bringing assessment *for* learning more fully into the mainstream of academic management and leadership (Yorke 1998; Orrell 2006).

So how might this be done? One way forward in some HEIs would be to review the scope and strength of commitment to assessment *for* learning in policy frameworks, strategic plans or mission statements, whether at the central, faculty or departmental level. Is it clear across the institution, for

instance, how highly guidance and feedback are valued, and how significant a role good guidance and feedback are expected to play in the day-to-day work of staff as well as students? Another option would be to explore to what extent robust assessment *for* learning is just as much a routine consideration as rigorous assessment *of* learning in the deliberations of external examiners, boards of studies/examination boards, curriculum validation committees, or teaching review panels (Hounsell, in press). A third option would be to look afresh at published assessment regulations and procedures: are there, for example, explicit requirements or minimum standards for how often, how promptly, or in what forms students will be given opportunities for formative assessment? A fourth option might be to ask whether and how greater support (strategic, technological, administrative, students' learning and language skills) could be productively given to staff in the front line of assessing *for* learning.

Enabling evolutionary change to flourish

An inescapable feature of contemporary HE is the scope and pace of changes in circumstances, opportunities and needs. In the realm of assessment, factors influencing change can range widely and can include:

- shifts in the contours of a subject, for instance, that need to be reflected in how and what is assessed
- developments in information technology that offer more effective or efficient ways of marking and commenting on students' work
- a firmer policy commitment to developing and assessing skills that students can deploy in a variety of workplaces and in other aspects of their lives beyond graduation
- fresh research insights into how high-quality learning outcomes can be attained
- an influx of students with more diverse subject backgrounds and aspirations, and a consequent need for better-targeted guidance
- alternative approaches to assessment that can enhance students' engagement or offer them new ways of communicating what they have learned.

Important though a readiness to rethink and recast assessment practices and procedures might be, there are factors which work against responsiveness to change, including pressures on resources - especially staff time - and cautiousness about innovating, which is associated with fears about declining standards. 'The dominant culture', Graham Gibbs has argued, 'is conservative and defensive rather than bold. It is often more difficult and more time consuming to gain approval for changes in assessment than for changes to any other aspect of courses' (Gibbs 2006). What scope, then, could there be to manage and lead assessment in ways that could better assist individuals and course teams to change and enhance practices in worthwhile and necessary ways, without jeopardising standards?

First and foremost, it may be helpful to clarify what freedom of action is open at what levels (the assignment or assessment, the module or course unit, the year or level, the degree programme), and within what limits, to explore and develop assessment approaches. This is necessary because the presumptive veto is often and widely perceived to stifle changes in assessment. 'We'd like to try X', the perception goes, 'but it wouldn't be permitted by the department/the faculty/the academic board/the senate/QAA/the external examiners/the professional accrediting body…'. Yet whether such a power or policy is real or imagined can sometimes be hard to discern, while the spectre of the pre-emptive veto, it appears, can be invoked as a convenient cloak for over-cautiousness.

A similar obstacle to change can arise because of an 'all-or-nothing' view of what may be feasible or permissible. In some institutions and subject areas, various innovative directions for which a sound educational case can be made (grading group or collaborative achievement, involving students in evaluating the quality of one another's work, commenting on students' drafts prior to final submission, summatively assessing oral presentations, marking on a pass/not yet satisfactory basis) can be deemed no-go areas because they seem to run counter to an ostensibly well-established rule-of-thumb, such as that any assessed work must be that of an individual, that only assessors can reliably and validly assess, that all assessed work must be available for scrutiny by the external examiner, and so forth. But there is a large amount of difference between seeking a wholesale transformation of an assessment scheme and entertaining the possibility that a given and perhaps quite modest fraction of it might not run with the long-prevailing winds. Freeing up just such a fraction for innovation and experimentation (20 per cent of the overall mark, perhaps) would be unlikely to put standards at risk if the initiative were well planned and carefully monitored. Indeed, it could help to forge new and timeous but no less exacting standards of attainment.

Another dysfunctional brake upon change and enhancement is uncertainty about how to proceed, stemming from a dearth of knowledge about how to put a particular assessment initiative into practice in a given course and subject area, in a form that would stimulate and not disenchant or unfairly disadvantage students, and be likely to fulfil its hoped-for goals. In the face of such understandable uncertainty, a promising counter-measure is to invest effort in the wider pooling of knowledge and expertise about changing assessment practices. Indeed, it is no accident that this Integrative Assessment series follows an increasingly popular path which combines guiding principles with a wealth of examples drawn from everyday assessment practices in a variety of settings (see, for example, Gibbs 1995; Hounsell et al 1996; Nightingale et al 1996; James et al 2002; Juwah et al 2004; Carless et al 2006). However gradualist and evolutionary it might be, change in assessment thrives on rich information about what has been tried elsewhere, in what form and to what effect, and with what apparent implications for the adoption of similar initiatives elsewhere.

Furthermore, the interchange of experiences and insights can be boosted within as well as across HEIs. At the University of Paisley, for instance, a thriving network of interested colleagues has been actively supported by the educational development unit in its efforts to share and discuss innovations in assessment; while at the University of Dundee, a working group convened by a

vice-principal has provided the focus for an institution-wide stock-taking of assessment practices and pinpointing of directions for enhancement. At Queen Margaret University, the approach adopted to validate and review degree programmes of study draws in colleagues from a range of departments and faculties, as well as externally, in order to foster understanding and debate about assessment and learning-teaching approaches across subject boundaries. Other examples can be found much further afield. At the University of Sydney, a recent special issue of an electronic newsletter has served as a medium through which staff engaged in assessment initiatives can share what they have learned with their colleagues (*Synergy* 2006); while at Melbourne University, a well-crafted set of guidelines has been devised to assist subject and course coordinators, heads of department and others in reviewing their assessment practices (Harris 2005).

Shared responsibilities for managing assessment

In HEIs, it can reasonably be argued, the management of assessment is necessarily a widely shared responsibility because of the profusion of roles associated with assessment processes and practices, and the nature of the responsibilities which these roles call for. Indeed, simply trying to spell out these numerous roles is instructive because university teachers can commonly be expected to undertake almost any of the tasks outlined in figure 1.

Figure 1 Assessment responsibilities of university teachers

University teachers can commonly be expected to undertake any of the following:

- design a specific assignment or assessment
- convene a revision workshop in preparation for a text or exam
- guide and support students in the process of carrying out an assigned task
- evaluate the quality of students' work in a coursework assignment or exam answer and award a mark or grade
- craft feedback comments
- moderate a set of provisional grades or marks given by a group of teaching assistants
- grant an extension to a coursework deadline
- participate in the work of, or chair, an examination board
- draft departmental guidelines on the conduct of assessment
- devise a blend of assessments for a particular course unit or module that engages with the learning outcomes anticipated
- second-mark an honours project or dissertation
- serve as an external examiner
- draw up a set of appropriate assessment criteria
- gather and review data on student perceptions of assessment
- review a case for condonement or an appeal against a mark, grade or degree class
- join a committee responsible for overseeing faculty or institution-wide assessment policy and principles.

No doubt further roles could be added to the already lengthy list in figure 1, but their sheer number and range, and the degree to which each does not stand alone but is interconnected with others, demonstrates the great complexity of assessment systems or 'regimes'. Furthermore, none of these roles is routine, mechanical, or easily delegated: all call for the exercise of informed judgment,

anchored in a deep grasp of the subject-matter. This also implies, inescapably, that responsibilities for managing assessment effectively - that is, for ensuring that it meets course, subject, institutional and system-wide expectations and requirements - should also be seen as widely shared, rather than being concentrated at or confined to a single level or forum of decision-making (Yorke 1998).

That in turn means that the steps highlighted in this Guide for managing assessment more integratively need to be widely considered if any great headway is to be made. Course teams, subject groups, departments or schools, faculties or colleges, central bodies, middle and senior managers all may benefit from grappling with similar questions. In our plans, procedures and policies, have we struck a good balance between assessment *for* and *of* learning? Could we enhance our capacity for change in assessment, through better sharing of insights and experiences about changing practices, by freeing up opportunities to try out new approaches, by clarifying who is empowered to do what, through more visible encouragement and support? Finally, what contributions could educational developments units or teaching-learning centres best make to assist individuals, groups and bodies in pursuing these challenges?

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