The professionalisation of learning, teaching
and assessment in Higher Education
through evidence-based practice

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Abstract

A series of 15 publications over the years 1991-2003 represent research activity into educational development and the professionalisation of learning, teaching and assessment in higher education (HE). This output constitutes an original contribution to knowledge about teaching in higher education within the following three broad areas:

(a) the professional training of teachers in HE, including: the need for such training, the nature and design of that training, its evaluation, and its effectiveness and desirability

(b) helping students to learn through ‘teaching’ each other,

(c) the effect assessment has on student approaches to learning, the need for teachers in HE to understand that effect, to develop and identify best practice, and to find ways of using that effect strategically.

Progression in each area is dealt with separately, as parallel developments of the main theme over the past 12 years.

In the three areas identified above, the research demonstrates:
- the need for training and for the professionalisation of teachers in HE, and the potential effectiveness of both initial training courses and of educational development workshops to help bring that about
- that forms of structured peer ‘teaching’ can have a sustained and transferable benefit to the students’ learning
- that a simple, short and inexpensive intervention in the assessment process can effect a significant improvement in student learning which is sustained over time

The research also provides evidence which:
- questions whether the increased emphasis on specifications, descriptors and explicitness is sufficient on its own to establish and maintain standards and transparency of standards
- demonstrates the need, when descriptors are used in course design, to distinguish clearly between threshold and aspirational outcomes

The publications have also been successful in disseminating good and best practice to a wider practitioner audience
REFLECTIVE OVERVIEW

INTRODUCTION

A fundamental paradox has existed within education in the differing expectations about support given to those who begin to teach. On the one hand, there are 'teachers' in schools who have had to be trained to nationally agreed standards via BEd and PGCE programmes. On the other, there are 'lecturers' in HE who are expected to teach, assess exams and coursework, and facilitate seminars but with no training or staff development whatsoever. I have therefore always agreed with Professor Lewis Elton's often repeated criticism that HE is probably the last cottage industry, and that traditionally university teaching has at best been a craft (Elton, 1993; Elton, 2001) where novice teachers have learnt from the experience of their elders. Elton argues this can be traced back in a continuous line to the middle-ages which he claims explains the continuation of many out-dated practices. However, unlike craft-based apprentices, university teachers rarely receive any feedback on their practice once they have passed their probationary period, and often not even during that period.

In the 1990s there was a significant increase in demand for the same professionalism in university teaching as is already expected as normal in research practice. Lester (1994) defines professionalism as "proficiency coupled with ethics, values and action appropriate to the situation", and claims that professions have certain characteristics
including "the need for rigorous learning [and] the application of theory". An additional characteristic, attributable to the work of Schön (1987) in particular, that has become prevalent especially in professions such as healthcare and education is that of reflection (both in and on action¹) linked with the concept of the professional as a reflective practitioner.

As part of this move to professionalise university teaching, and stimulated by work such as Boyer's *Scholarship reconsidered* (1990) and by calls from people like Elton (1995), there has been a move to see university teaching as an area worthy, and in need, of research. The research presented in these papers has been a response to that movement. The main theme that links this research is a desire to professionalise university teaching through training with a sound theoretical basis, and to increase the knowledge base of theory to inform university teachers' reflection. As Menges and Weimer (1996) argue, “the practice of instruction needs to be informed by scholarship” (p xiii).

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¹ Reflection 'in action' being the ability to be aware and to monitor the effects of what one is doing and to constantly modify and refine one's actions as a result. Reflection 'on action' being the process of reflection after the event where a more detailed and thoughtful analysis is possible leading to decisions about possible modifications in future situations.
THE PROFESSIONAL TRAINING OF TEACHERS IN HIGHER EDUCATION

The need for induction and training

In 1989, the majority of new lecturing staff received no training in teaching, and therefore had no rigorous learning or knowledge base of theory on which to reflect. The prevailing orthodoxy was that, unlike teachers in schools, lecturers in HE simply needed to be well qualified in their discipline. The better the research and consultancy record, the better the lecturer. The caricature was the “pearls before swine” notion of lecturing with the onus on the student ‘swine’ to make what they could of the ‘pearls’ put before them by the lecturer.

In that year I was newly appointed to an institution which actually had a one-year part-time training course for new lecturing staff, run by the educational development unit. I both undertook this course as a new member of staff, and contributed to it as a member of the course team. It was uncommon at that time for new academic staff to be trained in teaching; such courses were unusual and rare. There was little published data that I could find detailing either the content and objectives or evaluating their effectiveness where they did exist. One exception involved a series of articles published by the Journal of Geography in Higher Education between 1985 and 1988 (Fink, 1985; Gibbs et al, 1987;
Bondi, 1988) which highlighted the lack of effective induction and the general problems faced by new geography lecturers in their first year of teaching. So I set out to research the experiences of new teachers regardless of subject discipline. Thirty institutions in the UK – universities, polytechnics and colleges of H.E. – were contacted in 1990 and asked to circulate their new staff with an invitation to report their first year’s experiences under a list of suggested headings. Although a broader range of questions and headings were used, this survey method emulated the methodology which had provided much of the data for the Journal of Geography in Higher Education articles. Responses were received from 12 different institutions (6 polytechnics, 4 universities, 1 college of H.E. and 1 anonymous).

An analysis of these responses detailing common problems, and the different ways that institutions addressed or failed to address them, with recommendations for good practice which logically followed, was published as a SCED (Standing Conference on Educational Development) paper (Publication 1). The overwhelming conclusion of this research was that the majority of the staff surveyed had been left largely to their own devices, to get on with it, and to survive if they could. Induction and training were minimal or non-existent in most cases.

The critical nature of these findings led to them being reported nationally in both The Higher and the Guardian newspapers (appendix 1), the former under the headline “Lecturers ‘need teacher training.’” It is not inconceivable (although impossible to prove) that this played some small part in the subsequent growing demands for proper training.
that led to the recommendations of the Dearing committee (1997) and the establishment of the Institute for Learning and Teaching (ILT).

Evaluating the effectiveness of training courses

Despite (or possibly because of) such developments as the Dearing committee recommendations and the establishment of the ILT, there have continued to be doubters who have rejected calls for professionalism in university teaching and poured scorn on the need for training courses, questioning whether there is any evidence of their effectiveness (e.g. Rowland et al, 1998). And although by 1998 initial training courses for teachers in HE had become much more common in many countries around the world, a review of the literature by Gilbert and Gibbs (1998) pointed out that other reviews were highly critical of the limited quantity and quality of research evidence of the impact of educational development activities on the improvement of teaching and learning (Levinson-Rose and Menges, 1981; Weimer and Lenze, 1997). And what research there has been has tended to focus on specific and distinct kinds of development activity rather than looking at initial course programmes as a whole.

By this time, I had been course leader for the initial training course in my own institution for six years and had twice commissioned external evaluations both of which had produced very positive findings. The first evaluation was a questionnaire and focus group study involving participants from three cohorts of the course. This combination of
different research methods was used in order to provide both quantitative statistical data, and qualitative elaboration to help explain and interpret what that data might mean. (And this approach and reasoning has underpinned most of my subsequent primary research too). The second evaluation was carried out through guided conversations with participants, followed by the completion of a questionnaire, one year after completing the course.

As a response to the research gap reported by Gilbert and Gibbs (ibid) and to rebut the doubters such as Rowland et al (ibid) I decided to synthesise the results of these two evaluations and to publish the outcome (Publication 2). The conclusions of this paper were that, although concerned with only one training course in one institution, it did use data from two separate studies taken from four different cohorts that provided a consistent message that the course had had a positive effect for the majority of the participants, achieving behavioural and conceptual change and developing reflective practitioners. This was especially evident in the way the participants in the second study were able to talk about their approach to teaching, course design, etc. The paper includes many illustrative quotations, detail on the specific nature of these changes, and clear evidence in support of the activities of the ILT and the establishment of accredited training courses.
Evaluating the effectiveness of workshops

Previously, I had been similarly motivated to research the effectiveness of educational development workshops. The Oxford Centre for Staff and Learning Development (OCSLD) is the largest provider of staff and educational development in British HE and a significant amount of that development is delivered through workshops. In 1996 about 200 days of workshops were run by a network of facilitators in institutions of HE around the UK. In a survey by Wright and O’Neil (1995) teachers in UK HE had rated workshops as the third most likely practice to improve their teaching (after ‘recognition of teaching in promotion decisions’, and ‘Deans/Heads fostering the importance of teaching responsibilities’). OCSLD evaluates each workshop using a feedback questionnaire completed by the participants at the end of the workshop, and prides itself on how generally positive this feedback is and how highly rated the workshops are. However, it could be argued that this simply reflects a measure of participants’ satisfaction, coupled possibly with a need to justify their attendance, and provides no evidence that the workshops have been effective in achieving longitudinal change or improvement (Badley, 1992). If participants enjoyed the workshop and had a good time it seems highly probable that this may create a ‘halo’ effect where they may judge it to have had a positive effect which may not actually translate into changes in subsequent practice. There may also be the “Experimenter effect” in that, in response to the process of asking them to evaluate the workshop, participants feel they have to say something positive.
In a review of the literature Weimer and Lenze (1991) had identified that “actual research on workshop effectiveness is so meager that it makes assessment across any dimension a moot point” (p 301) and raised serious doubts about staff-development workshops (probably the most commonly used staff development method), expressing "considerable concern.....about the extensive use of a method to improve instruction with so little corroboration of its effectiveness" (p 305). I therefore decided to research whether OCSLD workshops led to changes in participants’ practice. This research (Publication 3) involved a quantitative analysis of questionnaire responses made four months after attending a workshop, followed by a qualitative follow-up by telephone interview.

The conclusion from the data collected was that workshops are effective in that they can promote at least some successful changes in the practice of most participants and extensive changes in some. They can also successfully reassure participants and provide them with extra confidence in what they are doing and with confidence to innovate. Thus this piece of research goes some way to filling the research gap identified by Weimer and Lenze (ibid). But arguably an even more important finding was that the workshop rating from evaluations carried out at the end of the workshop is a reasonable predictor of likely impact, and indications by participants of how likely they are to change are good predictors of likely impact. This is a tremendously useful finding for all those delivering workshops because it refutes the assertion of those like Badley (ibid) and means that it is not always necessary to carry out longitudinal studies or follow-up evaluations to establish the workshop’s effectiveness. Workshop evaluations alone can be good enough to do this job.
What development do academic staff want?

The OCSLD workshop evaluation forms, already mentioned above, also include the question, "On what topics would you like follow-up workshops or consultancy support?"

The sole original purpose of this question was to feed back the response to the institutional client who had commissioned the workshop with the hope that it would stimulate further business. However, at the end of 1996, I decided that these responses would be an excellent source of research data to identify in exactly which topics academic staff are interested in development. I therefore analysed the amassed responses covering October 1994 to December 1996 and attempted to interpret their implications for staff and educational developers (Publication 4). There were three main outcomes. The first was that as a very large number of respondents wanted follow-up on the topic of the workshop attended, developers should consider trying to design workshops in two parts separated by a reasonable period of time. The second was that a large number of staff would like their staff development activities and materials to have a clear disciplinary focus and relevance. Although I am personally somewhat sceptical that there are distinctive disciplinary pedagogies (Rust 2000) this perceived need for a clear disciplinary focus is very much in line with the arguments of Jenkins (1996) and what one might expect from the academic tribes depicted by Becher (2001)\(^2\), and of course since this study we have had the establishment of the 24 Learning and Teaching Subject Networks (LTSN) to provide exactly that (http://www.ltsn.ac.uk, accessed 1\(^{st}\) March, 2001).

\(^2\) Becher argues that the academic community is divided into disciplinary tribes, and that the major interest and first allegiance of most academics is to their 'tribe'.
2003). The third was that assessment, group work and learning theory, in that order, were by far the most requested topics. By this time I had already become interested in assessment as an area for research (the third area in this study, see below), and this finding simply corroborated for me its importance for staff as well as students.

**Contribution to knowledge**

I would claim that all four research publications cited in this section made original contributions to knowledge in this area, but most importantly I would point to the evidence in Publications 2 and 3 of the effectiveness of both initial training courses and of educational development workshops which previous literature reviews in the field had identified as significantly lacking. In addition, the research findings presented in Publication 1 were deemed of sufficient importance and interest that they received publication in the national press. This resulted in a lot of correspondence from people who had read the articles, the paper, or both and 347 copies of the paper were either distributed to SEDA members or purchased by others. Publication 2 is cited by Hodkinson and Taylor (2002). For staff and educational developers in particular, the findings in Publication 4 and the potential validity of workshop evaluations demonstrated in Publication 3 are also useful and original contributions. And after a request for feedback to several educational development mailbases, I received testimonials that Papers 2 and 3 are particularly often cited in workshops and presentations by leading educational developers including: John Cowan (UHI Millenium Institute, and formerly Open University, Scotland), Graham Gibbs (Open University), Trevor Habeshaw
HELPING STUDENTS TO LEARN THROUGH

‘TEACHING’ EACH OTHER

The main educational reason for wanting to professionalise teaching in HE must be in order to improve student learning. It was for that same reason that my attention was drawn to an article in the Times Higher in the early ‘90s which reported an innovation from the United States about a specialised form of peer-tutoring called ‘supplemental instruction’ which its originators claimed significantly improved the results of those students who chose to participate (an important aspect of the model being that it is voluntary whether the students attend). I therefore invited Jenny Wallace, who was running such a programme at Kingston University, to visit Oxford Brookes and lead a lunchtime seminar for staff explaining the theory behind the process and describing their experiences of introducing it at Kingston. As a result of this seminar, I agreed to support a colleague in Oxford Brookes’ Business School to introduce a supplemental instruction scheme as a pilot project.

The claims from the States about supplemental instruction (SI) were, and are, impressive: that it can make on average one grade-point difference for those who attend (Martin et al, 1992). My colleague, Margaret Price, and I were however concerned about this research for two reasons. Firstly, it was all based on data from the States and it could be argued
that contextual, attitudinal and cultural differences might lead to different outcomes in the UK. Secondly, the research seemed to fudge the issue about how one could be sure the participants in ‘supplemental instruction’ were not simply the more motivated, and therefore better, students who would have done better and achieved higher grades anyway. Another important factor was that the genesis of SI was to help students on what were perceived as ‘traditionally difficult courses’ with high drop-out rates and most, if not all, the programmes in the States were subsequently on such courses. This was not applicable to the Business School courses where we intended to introduce it. We wanted to see if it could be used to support the learning of students who were facing the problems of very large modules and classes.

Our preferred methodology for investigating the effectiveness of SI on three modules was to compare the results of the attenders with those of the non-attenders, (as had been done in the States). But, in addition, the results of these two groups were compared with their entry qualifications to university, and with their performance in other modules where SI was not offered. The logic behind this was to see whether better academic results could be explained by the argument that attenders were already better students.

This research was published in a Staff and Educational Development Association (SEDA) monograph (Publication 5) and was the first research into SI conducted outside the United States. The intention was to inform and empower staff and educational developers and course leaders with clear guidelines on how to establish such schemes, and to provide sound evidence of their efficacy. Our findings were statistically
significant and impressive in their support for the effectiveness of SI and the American claims. The findings revealed that SI did improve the results of participants and, most importantly from our point of view, that those who participated were a typical cross-section of students (neither weaker nor more able than those who chose not to participate). There was also another, unexpected and somewhat surprising finding: it was attendance at some SI sessions rather than the amount of sessions attended which made the difference. In other words, a little SI was enough to make the difference.

In the next phase of this research we decided to look into more detail on three points: why some students chose to attend SI (and by implication, why others did not), in what ways SI was being beneficial to those who attended, and whether any improvements gained through SI were sustained and transferred into later courses.

To answer these questions a range of methodologies was used. The results of SI participants and non-participants were compared on four popular modules taken in the following year which students who had experienced SI in the previous year were likely to attend. Students’ intentions and the perceived benefits were surveyed by questionnaire and also by face-to-face interviews with a sample selection. The results of this research (Publication 6) identified a range of reasons why students participate in SI and their perceived benefits of participating in the process. Most importantly though, the statistically significant data revealed that on modules one year later those who had participated were continuing to out-perform those who did not. This suggests that SI does
have a sustained and transferable benefit, albeit possibly constrained by context\textsuperscript{3}. The quality of this research was sufficiently recognised at the time that it was accepted for presentation at the international Improving Student Learning Symposium in 1994, and was therefore also published in their proceedings (Publication 7).

**Contribution to knowledge**

I would claim that this research project (which culminated in presentation at an international conference) and the three resulting research publications cited in this section made original and important contributions to knowledge in this area. The findings were the first to verify that SI could be effective in the UK with UK students. They clearly demonstrated that the benefits claimed by SI could not be explained away by any difference in ability between participants and non-participants. And they went beyond anything which had been done in the States at that time in being the first to demonstrate that SI does have a sustained and transferable benefit, and can be of benefit on courses other than those considered "traditionally difficult". But possibly the key conclusion was that it is attendance at some SI sessions rather than the amount of sessions attended which makes the difference.

\textsuperscript{3}The four subsequent modules were all Business modules where the assessed work would have been relatively similar.
The major limitation of this research was that we were unable to investigate whether there was any benefit on dissimilar modules, or if similar results could be reproduced outside a business education context.

In the UK this work is cited in a review of the associated literature by K.J. Topping (1996), and in the U.S.A. it is cited in David Arendale’s annotated bibliography of SI on the University of Missouri, Kansas City, (UMKC) website (http://www.umkc.edu/centers/cad/si/sidocs/sibib97.htm, accessed 1st March, 2003). UMKC is the ‘home’ of SI and the institution where it originated. 247 copies of Publication 5 were either distributed to SEDA members or purchased by others.

ASSESSMENT

Given the importance of student assessment to both staff and students, it is vital for teachers in HE to understand the effect assessment has on student approaches to learning. As Holroyd argues (2000), professionalism as educators must include professionalism in assessment practice. To develop and identify best practice in assessment, and to find ways of using that effect strategically, has therefore been my third, and major, research area.
Disseminating good and best practice from the literature to a wider practitioner audience

As already reported above, my research identified that assessment was the topic in which staff most felt the need for development. One strand of my publications and research and development activities has been the dissemination of good and best practice from the literature on assessment to a wider practitioner audience. I have selected just four examples to illustrate this.

In 1994, helped by two colleagues, I designed an experiential workshop for a SEDA conference on assessment. The workshop was designed around a number of key questions about assessment, with appropriate experiential activities, and it was subsequently written up as a chapter in a Kogan Page/SEDA publication (Publication 8) at the request of the editor, Peter Knight. Both the workshop and the chapter were intended to help lecturers explore some of the major assessment issues implied by the research literature. To help develop their ideas, the chapter poses a number of key questions that assessors should ask themselves and explores some appropriate responses, the questions being:

a) How good are you at assessing?

b) What are we assessing?

c) Why are we assessing?

d) How can we make assessment fair?

e) How should we assess artefacts?
f) How can we get the assessment right?

g) How can we weight criteria to focus student activity appropriately?

h) Who is best placed to assess?

i) How can we use assessment to empower learners?

j) How can assessment improve learning?

k) How can we ensure reliability and validity?

l) How can we get the statistics right?

m) What about assessing groups?

n) Why should we build in variety into our assessment practices?

Because of work in assessment such as that summarised above, in 1996 I was invited by
the American Association for Higher Education (AAHE) to run a pre-conference
workshop at their Assessment and Evaluation conference in Washington DC. The
purpose of the workshop was to explain and disseminate innovations in assessment
practice in the UK (especially from my own institution Oxford Brookes), and the
underlying theoretical principles and reasoning behind those innovations. The workshop
was well evaluated and a paper based on it, Publication 9, was subsequently published in
an internationally focussed edition of a US journal, Assessment Update. Where
Publication 8 had looked at classroom assessment very much from an individual
lecturer's perspective, this paper concentrated more on the meta-level issues of course
design and departmental and institutional strategies and policy. Its fundamental
argument is that assessment should be an essential and integrated part of the learning
process, woven throughout the curriculum in a co-ordinated and consistent way, and it describes practical ways of bringing this about.

In the early 90s, another aspect of pedagogic development in which I was involved was a national project aimed at addressing the problems caused by growing class sizes (Polytechnics and Colleges Funding Council, Teaching More Students Project – see http://www.brookes.ac.uk/services/ocsd/4_resource/books/tmspubl.html, accessed 1st March, 2003). Assessment is one of the major areas where considerable problems can occur when class size increases and both through the project and since I have gained considerable expertise in identifying potential solutions that are both practical and pedagogically sound. This expertise led me, in 2001, to write a monograph on the assessment of large groups (Publication 10) for the Learning and Teaching Subject Network Generic Centre as part of a series they were publishing on different aspects of assessment. This publication identifies the major assessment issues of larger classes and considers possible strategic responses at both departmental and institutional levels. It then goes on to provide detailed practical examples of possible solutions, plus six individual case studies from a range of disciplines to exemplify the implementation of some of the strategies.

In the following year, 2002, I wrote an article (Publication 11) which was published in the Institute for Learning and Teaching’s journal, “Active Learning”. In the context of a world-wide paradigm shift towards student-centred outcomes-based approaches this paper specifically identifies practical suggestions for assessment practice based on a
review of the research literature on the impact of assessment on student learning. A primary intention of this paper is to help to inform departments engaged in the development of assessment strategies and learner-centred assessment practices which met the Quality Assurance Agency's general principles on assessment.

**Primary research into assessment and the use of explicit assessment criteria**

In parallel with the activities and publications aimed at disseminating good practice described above, I have also been involved since 1997, with two colleagues, in a long-term (and on-going) research project focussed on the introduction and use of explicit assessment criteria.

The background of this project was in the context of the growing national concern in the UK about marking reliability, standards and calls for public accountability (Laming, 1990; Newstead and Dennis, 1994; Lucas and Webster, 1998). The response to these concerns about the reliability of marking had been to see the solution as ever greater transparency and explicitness at all levels. Generic level descriptors were advocated (Otter, 1992; Greatorex, 1994; Moon, 1995; HEQC, 1996) and the Quality Assurance Agency (QAA) embarked on its new quality assurance system, with three distinct elements – benchmarking, programme specifications, and a national qualifications framework – all intended to bring about the establishment of explicit degree standards.
The actual genesis of our project was in response to an external examiner for the Business Studies programme in Oxford Brookes Business School who was a strong proponent of criterion referenced marking as a means of ensuring consistent standards between markers. Working with one colleague initially in the Business School, we speculated that if standards could be more clearly defined the moderation of marking between markers should become easier. In addition to assuring quality standards it could also improve the quality and effectiveness of feedback to the students as it could be specifically related to those standards. Another external examiner was concerned about standards between modules and this lead to the idea of developing a Field-wide set of criteria and standards.

We wanted to see if it was possible to create a universal application of criterion referencing by all staff involved in teaching on business modules. Having considered a number of different models of criterion referencing we finally decided upon a two dimensional grid, defining the possible criteria to be used and the levels of achievement for each grade against each criterion. The grid was not a totally new idea but was an extension of work I had been involved in a year earlier in the University’s School of Health Care where a fairly basic framework had been developed (Morgan et al, 1996). But in the creation of this new grid it was my idea to take as our starting point the Higher Education Quality Agency (HEQC) pilot Graduate Attributes Profile taken from the Graduate Standards Programme recommendations to identify the criteria against which the students should be assessed. In defining the levels it was also my idea to use the levels defined by the two CATS (Credit Accumulation and Transfer) consortia SEEC

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4 At Oxford Brookes a Field is an identified collection of modules in a given subject discipline from which a student may acceptably select a programme, according to certain rules.
(South East England Consortium) and Wales HECATS (1996) for 1, 2, 3 and M. So where there was a close fit between the criterion identified and the descriptors used by SEEC and Wales HECATS, we used these to describe the standard necessary for each grade. First class work ('A' grade) was described by SEEC level 3 descriptors, Upper Second ('B+' grade) by SEEC level 2 and a Lower Second ('B' grade) by level 1. We then had to create our own definitions for the Third class ('C' grade) at the bottom, and a further grade of Fail/Refer to define what was unacceptable. We assumed that each defined grade was a description of what would be typical for that grade, and the whole grid was designed for use on advanced level modules (those normally taken by 2nd and 3rd year students). Despite a number of difficulties with both the graduate attributes and the SEEC level definitions a seven-page grid defining 35 separate criteria was eventually produced.

It was not possible (or considered desirable) to impose the use of the grid across the Business School but its existence was well publicised and its use actively promoted which resulted in it being piloted by approximately 25% of the Business School staff. Feedback on its use and effectiveness was researched (Publication 12) through a combination of semi-structured interviews, and e-mailed questionnaires.

There were a number of positive findings, that:

a) students appreciated it

b) it could improve consistency of marking (but there needed to be additional guidance and/or discussion)
c) it could make moderation easier

d) it made giving detailed feedback easier

Of more interest were two negative findings. Firstly, provision of the grid alone did not affect student behaviour. Secondly, the grid did not manage to establish a common standard. The grid had been designed to be used on Advanced modules (those usually taken by second and third year students) but the research found that it had also been used on Basic modules (those normally taken by first year students) and on an MBA module. In neither case did the tutors report any problem with regard to the level set by the descriptors, nor did they amend them. They were happy to use the same grade definitions. So the grid had failed its primary aim to establish a common level of requirements across modules.

A further disturbing outcome was in regard to the SEEC level descriptions. In initially trying to design the grid we started by trying to use the SEEC descriptors with a First being described by SEEC level M, an Upper Second by level 3, a Lower Second by level 2, and a Third by level 1. What we rapidly discovered, however, was that this gave us definitions of a third which were still too demanding compared with the reality of the standard of the work which in practice is given that grade. If we had continued and applied this grid a far higher percentage of students would have had to be failed. We therefore moved everything up a grade, with a first described by SEEC level 3, and had to create our own definitions for a Third. One possible explanation for this would be to see the SEEC level descriptors as aspirational, describing the level hoped for by the very best
students at that level rather than as threshold standards (but whether they were threshold or aspirational was certainly not made clear by SEEC at the time). And either way, it is salutary to note that students are passing final year degree work (albeit with only a third) with work that would not meet SEEC’s description of level 1!

Further research (Publication 13) into the use of the grid was then carried out to identify how the students experienced it, which in the previous study had only been identified second-hand through the tutors’ responses. A two-step process was employed: an initial broad sweep survey by questionnaire to check and identify the main issues, which were then used to structure the questions put to a number of focus groups to gather more in-depth qualitative data.

The findings confirmed and complemented those of the earlier study. Despite the readily identified problems – for the students, actually understanding what the words really mean, and for tutors, the possibility of different interpretations and weightings, and consequently the continued subjectivity of individual markers – the grid was judged to be a positive idea worth continuing with to see if the problems could be overcome.

Our conclusions as a research team were that more work needed to be done on how to provide students with a better understanding of what is required of them and what the criteria actually mean. The grid in its quasi-scientific form had incorporated too great an assumption about the nature of the knowledge to be transferred and the ease with which it might be transferred. How to successfully transfer knowledge about assessment criteria
and processes from the experts in the system to the novices therefore needed to be considered further.

In designing the next phase of the research project, my two colleagues brought to bear their expertise and understanding of knowledge management theory (Nonaka, 1992; Baumard 1999) and associated theories of tacit knowledge transfer (Eraut, 1994; Polanyi, 1998). We were all aware of the implications of social-constructivist theories of learning (Piaget 1971, 1985; Vygotsky, 1978; Fosnot, 1996) that in order to learn a student needs to actively engage with the subject in some way and to construct the knowledge for themselves. My individual contribution was my knowledge of claims from the United States (Nelson, 1994) of the potential effectiveness of student marking exercises, along with studies from the UK which have shown significant improvement in the work of students involved in marking using model answers (Forbes and Spence, 1991; Hughes, 1995, et al). This combination of knowledge and expertise led us to look at how the grid might be used as a process tool to facilitate shared understanding between staff and students rather than as an end product which could establish explicitness simply through its own existence.

The result was an intervention centred around an assessment workshop, intended to increase the students' understanding of the assessment criteria and what was being expected of them, and thus improve the quality of the work they produced. The exact detail of the process was as follows:
a) A week before the workshop all students on the module were provided with two sample assignments (one excellent piece of work and one a borderline pass) and marksheets including assessment criteria and grade definitions (an assessment grid). Students were asked to individually complete a marksheet providing a grade, marks and rationale and feedback for each of the assignments before coming to the workshops.

b) Workshops (90 minutes long) were held for all students in groups of 40. These were held within the module's time frame but were in addition to the weekly lecture and seminar. The workshops were structured in the following way:

i. Small group discussion of initial marking of sample work;

ii. Feedback of small groups' agreed grades and rationale to plenary;

iii. Tutor-led comparison of provided rationales with criteria;

iv. Tutor explanation of each criterion;

v. Small groups review their initial assessment and grade;

vi. Final small group report to plenary of grade for each piece of work;

vii. Tutor provides tutor-marked and annotated versions of samples, and discusses reasons for the assessment and mark given.

The small group discussions allowed the students to compare and justify their initial assessment of the work against that of others as well as allowing the declared grade to be the responsibility of the small group. However the students were asked explicitly not to change their initial grading on their individual sheets.
c) Three weeks later, students submitted their coursework along with a completed self-assessment sheet.

The same feedback sheet was used for the sample assignments and for the self-assessment. It incorporated comments, an assessment grid, a grade, and a mark.

The research design behind this project involved three types of statistical comparison. Because attendance at the workshop was voluntary, we knew we would be able to judge the effectiveness of the intervention by comparing the results of those who participated with those who did not (a treatment comparison). But because the participants were self-selecting, we also knew that there would be a concern that they may not be representative of the cohort population. Results could easily be skewed if the participant sample differed from the non-participants in key attributes such as motivation or ability. To test for this we therefore decided to use the same method (baseline comparison) as had been used on the SI research discussed earlier (Publication 5); the marks achieved by the participating and non-participating students were compared with the marks of both groups on another module where the work was submitted for marking prior to the intervention workshop. To strengthen the validity of any findings, the intervention was also designed to run twice, in successive years, with two different cohorts on exactly the same module. And in the second year, we also wanted to see if any positive effects on the participating students in the first cohort would continue by comparing their results with those of the non-participating students on a module one year later (a transfer comparison).
Although designed as a two year research project, the dramatic nature of the initial findings and the importance of this research led to the presentation of a paper at the international Improving Student Learning Symposium in 2000, which was also published in their proceedings (Price, M., O’Donovan, B. and Rust, C., 2001). The ultimate findings of the completed two year project (Publication 14) reinforced and elaborated those initial findings.

The major conclusions of this study, repeated and replicated over two years, are that the participants at the assessment workshop subsequently achieved statistically significant better results in their assessed coursework. In comparison, the performance of the participants and non-participants on a module prior to the intervention showed no significant difference in the performance of the two groups. Furthermore, one year later, the participants of the first cohort were still achieving significantly better results than the non-participants. Since submitting these findings for publication, these outcomes have been replicated again for a further year’s cohort.

An additional finding was that while not, apparently, making those who participated better able or more accurate at self-assessment the exposure to exemplar assignments may have opened up their horizons to what really good work could look like and the potential for them to improve. As a consequence, we suggest that this may lead participants to subsequently underestimate the quality of their own work, and this may be especially true for previously over-confident male students. But we can only claim this
as a research inference – it is our suspicion, based on the limited findings we have, but we do not have sufficient data to make this a confident assertion.

Advocacy for radical change in assessment practice and a suggested model of how it might work

As a result of spending so much time working in the area of assessment specifically, and teaching and learning more generally - leading workshops, providing consultancy, reading, writing and researching - I have become increasingly aware and knowledgeable about the many problems and weaknesses of current practice. And a synthesis of my secondary and primary research, and my experience, has led me to believe that I may have a creative solution (Publication 15) to at least some of those weaknesses and problems.

This somewhat polemical work starts by identifying the problems particularly associated with modular degree programmes, i.e.:

a) compartmentalisation of learning
b) lack of progression and synthesis
c) too much summative assessment
d) ineffective personal tutoring systems
The paper is also written recognising that, whether modular or not, the majority of courses are now at least nominally designed using the concept of learning outcomes and with much rhetoric about student-centredness. However, the assessment procedures have not progressed accordingly. Instead, they remain rooted in the content model of course design with their use of grades and marks, and resulting totals achieved by mathematical and/or subjective aggregation of the student's achievement against various criteria which often bear little or even no obvious relationship to the course's avowed learning outcomes.

The crucial, and somewhat radical, proposal on which the paper's solution to this problem is based is that assessment for credit should no longer be directly linked with individual modules taken, but be based instead on learning outcomes achieved. Taken from Barr and Tagg's seminal work (1995), the paper takes this basic idea and proceeds to explore how it might be implemented. The result is a theoretically underpinned case for a radical alternative model of assessment that offers an initial consideration of practical ways in which it might be implemented by integrating and adapting certain existing practices and changes that are already underway such as:

a) explicit learning outcomes and programme specifications
b) progress files
c) portfolio assessment
d) AP(E)L and work-based assessment
Although apparently radical, I am proud of this piece of work because I believe it offers logical and theoretical coherence to the student-centred outcomes model of course design by bringing assessment practices in line with the underlying philosophy and rationale of that model. It offers solutions to a number of the negative aspects of modular courses, and it provides practical ways of achieving this using practices that already exist and changes that are already underway.

**Contribution to knowledge**

I have made a significant contribution to knowledge in the area of assessment in a number of ways. Firstly, I have been successful in disseminating good/best practice to a wider practitioner audience providing both practical suggestions and solutions to very real assessment issues. These include reliability, validity, the problems of assessing large classes, and the theoretical underpinning and research evidence that supports these solutions. The LTSN publication (Publication 10) has been distributed to all UK HE institutions (HEIs), four to each, sent individually to the Vice Chancellor, Pro Vice Chancellor, Head of Educational Development, and the Library, and also distributed through LTSN subject centres to their contacts in departments in all HEIs. An additional 94 copies have been purchased (as part of the series) and it can also be freely downloaded from the LTSN website. Copies have also been sent to America, Australia and Sweden. As a result of that publication I have been invited to run workshops both in the UK and abroad, in countries such as Sweden and Denmark, and was invited to write a specific article (Rust 2003) for the Ingenioruddannelsernes Pedagogiske Netvaerk (Pedagogical
Network for Engineering Education in Denmark). 800 copies of Publication 8 have been produced so far and currently demand is running at approximately 60 copies a year. Publications 11 and 15 were distributed to all members of the Institute for Learning and Teaching as well as being purchased by non-members - some 15,000 copies approx. in total. Publication 11 is cited by Alistair Mutch (2003) and in a readership survey, carried out by the ILTHE, was found to be the second most popular article published in Active Learning in Higher Education Journal (see appendix 2).

Secondly, the primary research I have been involved in has contributed to debate on a number of important current issues. It has added evidence to support the voices questioning whether the increased emphasis on specifications, descriptors and explicitness is sufficient on its own to establish and maintain standards and transparency of standards. It has also identified the need, when descriptors are used in course design, to distinguish between threshold and aspirational outcomes. But probably most importantly, it has shown that a simple, short and inexpensive intervention can significantly improve student learning which is sustained over time. This research played a significant part in the successful bid by my colleague, Margaret Price, to become a National Teaching Fellow and is obviously cited in her article on assessment written for the LTSN (http://www.hlst.ltsn.ac.uk/resources/link5/link5_3.html) accessed 1st March, 2003). Publication 12 is cited in a paper by Peter Knight (2002) and although only recently published, I have already received requests for copies of Paper 14 from Sweden (Joyce Kijlstra, Mid-Sweden University) and Canada (Sergio Piccinin, University of Ottawa).
Thirdly, and this is the contribution I am actually most proud of, in Publication 15 I have produced what I believe to be an original, radical but practical alternative to current practice which would both improve student learning and overcome a number of existing problems. It has been cited twice in publications by Per Lauvas (Lauvas & Jakobsen, 2002; Lauvas, 2003) from the University of Oslo, and is cited by David Baume in his work on the use of portfolios in assessment (Assessment Series No.6, *A briefing on Assessment of Portfolios*, available at: http://www.swap.ac.uk/approaches/Assessmentseries/06Portfolios.rtf, accessed 1st March, 2003). It also inspired Neil Fleming, then at Lincoln University, New Zealand, to create a hierarchy of assessment options diagram (see appendix 3) for use in workshops.

After a request for feedback to several educational development mailbases, I received testimonials that my work on assessment is often cited in workshops and presentations by leading educational developers including: Jenny Blumhof (University of Hertfordshire), John Cowan (UHI Millenium Institute, and formerly Open University, Scotland), Graham Gibbs (Open University), University of the West of England), Mick Healey (University of Gloucester and National Teaching Fellow), and Patrick Smith (Bucks Chilterns University College).
SUMMARY

Of the 15 publications in this submission, 10 have reported on primary research while five have been based on secondary research either because their intention was to disseminate the research literature more widely, or because the papers were more theoretical and/or polemical. Where primary research has been involved, the methodologies used have included both quantitative methods involving statistical analysis of data such as questionnaire responses and student results (to establish statistical significance for the research data), and qualitative analysis, gained from sources such as telephone interviews and focus groups (to enable interpretation and explanation of the quantitative data). The value of using both qualitative and quantitative methods and methodological triangulation in educational research has been recognised by many social researchers (e.g. Bryman, 1988; Layder, 1998; Cohen et al, 2000; Hartley & Chesworth, 2000). The overarching methodology, however, has been that of evidence-based practice (Trinder and Reynolds, 2000). All the publications have been peer reviewed. 11 are in journals, six of which have international standing. In all three areas, the research presented includes significant and original evidence to inform and guide professional practice.

Doctoral level performance is associated with the synthesis of other publications, research and theories. This submission contains a number of publications which have done this with a variety of intentions:
a) to disseminate good/best practice to a wider practitioner audience
b) to contribute to and progress critical debate
c) to provide new approaches and viewpoints

Most importantly, however, a doctorate submission contains originality of research which contributes new knowledge and takes a particular area of knowledge forward.

These publications contain the following original findings:

- the need for training and the professionalisation of teachers in HE
- the potential effectiveness of initial training courses
- the potential effectiveness of educational development workshops
- the workshop rating from evaluations carried out at the end of a workshop is a reasonable predictor of likely impact, and indications by participants of how likely they are to change are good predictors of likely impact.
- that forms of structured peer ‘teaching’ can have a sustained and transferable benefit to the students’ learning
- a simple, short and inexpensive intervention in the assessment process can significantly improve student learning which is sustained over time

There are three interrelated links running through the three themes and these 15 publications. The first is a commitment to improving student learning and the quality of the student experience, through:

a) looking to find the most effective ways of improving the skills, practices and theoretical knowledge (the professionalism as educators) of teachers in higher education,
b) through the development of peer-tutoring by students, and

c) looking to develop and identify best practice in assessment, and to find ways of using assessment to improve student learning.

The second link is a belief in, and commitment to, the professionalisation of learning, teaching and assessment in HE and the need for our practice as educators to be evidence-based. As Hargreaves (1997) argues, “educational research should and could have much more relevance for, and impact on, the professional practice of teachers than it has now” (p405).

The third link is a belief that educational developers need to engage in pedagogic research and to contribute to the development of evidence-based practice and the scholarship of teaching in HE. I agree totally with Angela Brew (2002) when she says, “educational developers cannot just sit on the sidelines. Unless they too take research seriously, they will not have credibility. This means that educational development has itself to be evidence-based. If teachers are going to engage in the scholarship of teaching, educational developers must exemplify this. This means doing research which is useful in academic development work and using research, explicitly, in development activities.” I believe these fifteen papers demonstrate that I have taken research seriously, and that they are a useful and valuable contribution to the improvement of student learning through the development of the scholarship of teaching in HE and its professionalisation.
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Rust, C. (2001) A briefing on assessment of large groups, LTSN Generic Centre Assessment Series, No. 12, York, LTSN

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APPENDIXES
New lecturers left to sink or swim

James Melkie
Education Correspondent

NEW academics are being left to sink or swim by universities and polytechnics, says a report on lecturers' experience of their first year in higher education.

It calls for training courses in teaching to be offered to all inexperienced recruits, and urges institutions to improve other support given to newcomers.

The author, Chris Rust, senior lecturer in educational methods at Oxford Polytechnic, says too many new staff are being failed by employers who leave lecturers to their own devices.

Most recruits he questioned in a survey of 12 higher education institutions claimed no more than to have coped with their teaching. There was also little help in marking or assessing their students' performance.

One academic reported: "I quickly discovered that I disliked teaching... I was not really prepared for lecturing 90 first-years. I experienced some discipline problems, but on the whole I think I coped quite well... I think some advice on 'crowd control' would have helped a lot."

Mr Rust says all new staff should start with a reduced teaching load. He notes in the report for the Standing Conference for Educational Development that support for new lecturers seems largely a matter of chance.

Improvements would be "largely common sense and would not be expensive to introduce... In most cases, all it really requires is the will."

The report reflects growing concern in higher education about the need to monitor and improve the quality of teaching in the sector, where no formal teaching qualifications are required.

The Committee of Vice-Chancellors and Principals said most universities did have training available for new lecturers but the take-up was patchy.

Surviving the First Year — the experiences of new teaching staff in higher education; SCED Publications, Learning Methods Unit, Birmingham Polytechnic, Perry Barr, Birmingham B42 2SU; £5.

Lecturers 'need teacher training'

BY JENNIE BROOKMAN

ALL inexperienced lecturers should receive a training course on teaching in higher education, concludes a new report.

It follows a survey of new staff in their first year at institutions which found an overwhelming majority were left to "sink or swim."

Where support was offered, it was almost always ad hoc and a matter of chance, claims the report: Surviving the First Year.

Chris Rust, of Oxford Polytechnic, author of the report, concludes: "Just reading the catalogue of experiences recounted in this paper I would hope would spur the powers that be to take some action."

"At a time when appraisal systems are being established, enterprise training is being funded and the Polytechnics and Colleges Funding Council has given quality of teaching such a high priority, institutions surely cannot fail so many new staff in this way."

"I find equally amazing the fact that, if you review the recommendations in this paper, they are largely common sense and would not be expensive to introduce," he adds.

The survey questioned new staff at 12 different institutions and recorded their experience from appointment to the end of the first year.

It recommends staff should receive more information about the institution and department before their starting date including a chance to meet future colleagues.

"Their teaching loads should be reduced in the first term, and they should have a mentor to go to for advice as well as a departmental induction programme."

"But it was new lecturers' responses to early teaching experiences which showed many suffer severe problems. One told the survey: 'It was very unnerving to find myself thrust into a classroom full of students and left to get on with it. I could have been doing anything and no one from the poly would have known better."

Another confided: "I quickly discovered that I disliked teaching. I was not really prepared for lecturing 90 first years. I experienced some discipline problems but on the whole I think I coped quite well. There was a paper aero plane throwing iPad for three lectures but I stamped on that. I think some advice on crowd control would have helped a lot."

The report says the fact that so many still managed to enjoy teaching and refrain from resigning before the end of the year is largely a testimony to their own resilience.

It includes an example of good practice, a description of a one-year part-time course at Oxford Polytechnic which is compulsory for new lecturers with less than three years' experience of higher education teaching and no teaching qualification.

Marking and assessment was another major area of difficulty, with new staff complaining it was often simply assumed they would know how to do it. Some found help from colleagues by exchanging examples of students' work.

Other problems were found in coping with equipment shortages, understanding curricular development and course validation processes.

Surviving the First Year: The experiences of new teaching staff in higher education. Standing Conference on Educational Development paper 65.
Active Learning in Higher Education

Following a recent postal survey of readers of the ILTHE journal reviewing responses to articles since its inception three and a half years ago, I thought you might be interested to know that your article 'The impact of assessment on student learning: how can research literature practically help inform the development of departmental assessment strategies and learner centered assessment practice?' Volume 3 Issue 2 p 145-158 was mentioned by members as being the second most popular article that we have published.

The journal has a circulation of over 15,000, so this represents a considerable accolade. Can I congratulate you on this achievement.

Yours sincerely,

Prof Sally Brown
Director of Membership Services, ILTHE
### ASSESSMENT OPTIONS

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<td>Explain to the panel why you should be granted a degree.</td>
<td>Richard Bawdin, Hawkesbury College, NSW, Aust.</td>
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<td>From your portfolio select the items that indicate you have these graduate skills and competencies.</td>
<td>Chrs Rust, Oxford Brookes Univ. UK.</td>
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Diagram to be used in workshops created by Neil Fleming, then at Lincoln University, New Zealand
STATEMENTS FROM CO-AUTHORS
24 March, 2003

Private and Confidential

To Whom It May Concern:

Re the following three publications:


Too much time has passed to remember the minutiae of which of us had any specific idea, but this research, and the production of these three papers, was genuinely collegiate and collaborative with all aspects of the process shared and contributed to equally.

Margaret Price
Head of Learning and Teaching, Business School, Oxford Brookes University
meprice@brookes.ac.uk
With reference to: Chris Rust  
OCSLD  
Oxford Brookes University  
Gypsy Lane  
Oxford

01 October 2002

To Whom it may concern

We write in support of the application by Chris Rust for a PhD by publication.

We are happy to provide an outline of the contribution made by Chris to our joint book chapter ‘Use and Experience Assessment’ in Assessment for Learning in Higher Education edited by Peter Knight, Kogan Page 1995.

The chapter arose from a joint workshop that we led jointly with Chris at his instigation at a SEDA conference in 1994. The workshop was devised and undertaken jointly, with Chris providing a significant proportion of the original ideas that underpinned the workshop.

In writing up the chapter, Chris took the initiative to prompt us into writing jointly and encouraged us to ensure that the outcomes of the workshop were transformed into a chapter that many have told us is a useful overview which provides valuable questions and appropriate tools for all those who undertook assessment in Higher Education.

The drafting of the article and its ultimate writing up was a truly collaborative activity in which we shared equally. However, I would particularly like to point out Chris’s pro-activity in designing the questions to be addressed and in offering a range of solutions to the problems raised.

We are both happy to support Chris in submitting for a doctorate using this chapter as partial evidence for this award.

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Institute for Learning and Teaching in Higher Education  
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Professor Phil Race  
Independent Consultant  
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York  
YO10 5AW
24 March, 2003

Private and Confidential

To Whom It May Concern:

Re the following three publications:


This research, and the production of these three papers, has been collegiate and collaborative with equal contributions from each of us.

Regarding detailed contributions, in the creation of the original grid it was Chris’ idea to take as our starting point the Higher Education Quality Agency (HEQC) pilot Graduate Attributes Profile taken from the Graduate Standards Programme recommendations to identify most of the criteria against which the students should be assessed. In defining the levels it was also Chris’ idea to use the levels defined by the two CATS (Credit Accumulation and Transfer) consortia SEEC (South East England Consortium) and Wales HECATS. It was also Chris’ subsequent interpretation to make the distinction between ‘aspirational’ and ‘threshold’ standards regarding the SEEC descriptors.

In the later work, a significant individual contribution from Chris was his knowledge of claims by Craig Nelson of the potential effectiveness of student marking exercises, along with studies from the UK which had shown significant improvement in the work of students involved in marking using model answers.

Margaret Price, Head of Learning and Teaching, Business School, Oxford Brookes University
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Berry O’Donovan, Principal Lecturer Learning and Teaching, Business School, Oxford Brookes University
bodonovan@brookes.ac.uk
Rust, C. (1991)

Surviving the first year: the experiences of new teachers in Higher Education,

Birmingham, SCED Paper 65
Surviving the First Year
The experiences of new teaching staff in Higher Education
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Between 1985 and 1988, a series of articles appeared in the *Journal of Geography in Higher Education*, about the problems encountered by new geography teachers in their first year of teaching in Higher Education. I wanted to widen the issue to consider all new teachers, regardless of subject, and also to see whether things had improved. Thirty institutions in the U.K. - Universities, Polytechnics and Colleges of H.E. - were contacted in 1990 and asked to circulate their new staff with an invitation to contribute their first year's experiences under a list of suggested headings, and responses were received from 12 different institutions (6 Polytechnics, 4 Universities, 1 College of H.E. and 1 anonymous).

This paper is the result. It is about what happens to new staff during their first year in institutions of Higher Education - in particular, what common problems were encountered, how such problems were addressed by the institutions and departments they had joined and, ultimately, what helped them survive. The headings they were asked to comment under now form the chapter headings of the paper, and are intended first to take us chronologically through the year, from the time of appointment, and then group the experiences into certain key areas.

The experiences are inevitably varied and diverse, and no claim is made that they are strictly representative or typical of all new staff in all institutions. (It is perhaps worth noting that there was no noticeable distinction between the responses from different types of institution.) Ultimately, the reader must be the judge of the validity and relevance of this paper - do the experiences recounted strike a chord with what happens in your institution, and do the suggestions advanced make sense in your context? Interpretation has, in fact, been kept to a minimum and, as much as possible, the respondents have been left to speak for themselves, although each section does conclude with a brief summary of recommendations which would seem to follow from the comments that have been made.

I am very grateful to those who took the time to respond, many at great length. For some, I sense it had a cathartic effect. However, I would like to think that they could all see it as time well spent if, as a result of this paper, they may have played a part in helping to improve the experience of future new staff.

I believe that there is a wealth of insights which can be gained from these experiences, and conclusions which may usefully be drawn, with clear implications for Institutional managers, Heads of Department, Personnel Departments, and Educational and Staff Development Units, if they are prepared to listen.
Contacts between the time of appointment and actually starting

The extent and quality of contacts covered the complete spectrum possible from none at all, to the Head of Department who put up the member of staff in their own house, while they looked for permanent accommodation.

Perhaps the highest praise goes to the department where the newly appointed Course Coordinator was invited to stay with the Course Leader before the start of the academic year to draw up the day to day, week to week delivery of the course and was subsequently invited to a further meeting with the course team for two days at a colleague’s house.

“There could be no more civilised way of doing things; the system is an expression of a department where colleagues seek each other’s company and advice.”

It must be said that one respondent said that there had been no contact between the interview and starting but having been round the institution before the interview found that perfectly adequate. However, as one might expect, where there had been contacts (and in most cases there had) they were almost invariably found to be useful. Most were arranged informally and seemed to be dependent on offers by individuals in the new institution. In one particular case where no such offer was forthcoming a persistent new appointee only eventually managed to arrange a meeting with the person they were replacing by taking a day’s annual leave because of that person’s inflexibility in times they were prepared to meet. Another managed to get the information they wanted only through repeated phone calls from abroad.

Telephone calls were, in fact, made in a majority of cases but, in addition, most appointees were also invited to return to the institution between appointment and starting. Such invitations were either to a meeting, or to observe the work of the department, or in one case to actually shadow a colleague, which was found to be very rewarding and that individual would have liked to have done more. The nature of the meetings varied greatly including one-to-ones with HOD’s or Course Leaders, meetings with students, and formal Department meetings, and in virtually all cases were found to be valuable.

However one respondent, despite meeting their predecessor, was not alone in expressing a feeling of vagueness:

“I came to the Poly with only the vaguest idea of what I was expected to teach.”
Contacts between the time of appointment and actually starting

It is also worth noting that attending meetings per se is not necessarily helpful:

"Invited to attend 3-4 meetings concerning course development on various courses - although individual members of staff attempted to involve me in the meeting - most of the time was spent in confusion, and other members of staff used the opportunity to off-load work onto me."

Another respondent, invited to a two day Board of Study in July found the unfamiliarity of people, place, and especially the jargon almost overwhelming, and returned to their former job with their "head buzzing".

Usually invitations came from Heads of Department but in one case it came from another member of the department who knew the HOD would do nothing and motivated by their own experiences of starting having been so miserable; another appointee was invited out socially by one member of the department to meet others in the department. Some contacts were, however, less welcome. One respondent's only contact was just a few days before starting:

"I received a telephone call to say that on my first day I would be giving a lecture at 9.00a.m. and again at 11.00a.m. I was given details of where these would be, to whom they were to be given and what I was to lecture. At lunch time I was then to report to the Head of Department where I would be welcomed and visit the staff. Thrown in at the deep end you could say."

Only two institutions made any formal contact that was deemed helpful, one in the form of information about the institution, the other, a package from their educational development unit; however, the latter institution also sent "a horrible document outlining what they would do to you if it was discovered that you could not teach." A third institution's Personnel Department was praised for its helpfulness in lengthy discussions over contracts and conditions of service, but these were instigated by the lecturer.

Recommendations

There should be some contact between the time of appointment and actually starting and this may take a variety of forms. If possible, another visit and the chance to meet future colleagues (support staff as well as academic) should be arranged, and a contact name and phone number provided. Shadowing one of the colleagues might also be suggested, but there should be careful avoidance of overload.

As much basic information as possible should be provided in written form. The institution centrally should provide such things as term dates, a map of the buildings locating key places such as the Library, Staff Common Room and Print Room, and information about opening times, car parking facilities and creche provision. The department could provide a list of staff names and responsibilities, departmental resources available, course booklets and, most importantly, as soon as possible, information about what the individual will be teaching and what those students have already done. In many cases, before taking up the appointment, individuals have time to do background reading and preparation, which later becomes a scarce commodity. In addition, such activity will help to relieve the anxiety of wanting to be as prepared as possible.
The first few days

The major variant in experiences of the first days seems to be dependant on whether new staff were able to start while the students were still on vacation and, if so, whether key people like HOD’s were available, or still on holiday. For one respondent who started before the student term:

“This was a very quiet period and gave me a valuable few days in which to find my feet and prepare for my first lecture.”

For others, however, it was clearly too quiet:

“These were difficult days with a lot of sitting at the desk and looking around. ...I had very little idea of how the system might work within the College in order to accomplish even the smallest thing.”

“These [days] were a bit unreal before teaching started. I was not sure quite what I was supposed to do - it was just a case of being around to see what happened.”

One respondent identified the problem as the absence of frameworks:

“It is so much a matter of what you make it. I would have liked someone to sit down and draw up some sort of framework for me to follow until I got the hang of it.”

For those who started at virtually the same time as the students, the speed of things was obviously very different:

“The first few days of the first term were so hectic that I remember little of them. What was particularly difficult was not knowing all the simple things that operate within an institution: i.e. how to book a video camera; who could I ask to type a letter; where the canteen is (and what time it opens); etc.”

Obviously the feelings of strangeness and isolation were less strong for those who had HOD’s and new colleagues who involved them and helped them settle in - in some cases working with them on the planning of lectures and units. Another found things were a lot easier because they shared an office with another new starter. One stated that their main source of security was a colleague:

“who planned my first few days so that I would not be subjected to too much information, but that I would be able to take in as much information as I was given.”
The first few days

Yet another had one staff member assigned:

"to show me in general around two of the three College sites."

It is worth noting, however, that not all advice actually is helpful. One respondent was told:

"'Don’t worry - just do the subject once with the postgrads and then repeat it with the first year undergrads' [only to find] It is never the same with the undergrads but being green I didn’t realise that."

On the other hand, neither is no advice:

"I became frustrated at continually being told 'Do what you like' in response to my question 'What do I do if/when..?'"

Some people also had problems with the initial organisation.

"Initial registration was a fiasco, since staff on the 'arrival' desk had little idea about what they were doing. Consequently I spent half an hour waiting around and a further half hour being briefed about flexi-time with a group of ancillary staff."

Another recalls that having been given a list of duties, with average hours, in the first week before term they had to "run round and put times to them". In fact they found “everyone just running round trading timetables to get classes organised and just got caught up in it.”

Others had problems over the facilities:

"Unfortunately there was a temporary lecturer who was occupying my office (until the end of September) and I was placed in another office for the first month. However I was not given a key to the building, the computer room or library as they wanted to give me the set of keys held by the temporary lecturer. As he had applied for the job to which I was appointed this was extremely embarrassing as well as inconvenient for me.”

"Photocopy cards were not issued immediately as it was faculty policy to only issue them after training was given on the use of the copier. As only one member of staff was employed in this role, it was at least three weeks before we got our cards."

The whole area of support facilities is, in fact, one which we shall return to later in the paper, but perhaps the next response best summarises the array of pressures confronted by new lecturers in the first few days:

"As well as a total of 18 hours student contact time on my timetable, responsibility for the re-design of a teaching laboratory, and being brought into a Teaching-Company scheme, I was introduced to the staff of over 80, I had to find my way around the Polytechnic spread over 5 sites and discover all the basic things which are eventually taken for granted such as who were the typists, where the photocopier is located and where the stationery is kept and who keeps the various keys and for what etc. This was all on top of....the five hours total daily commuting."

Only one respondent seems to have received any special consideration with regard to their timetable."I was given two weeks free of lecturing to find my feet," and even they found that they were immediately involved in helping in practical classes, whilst "feeling I should be in the class."

Another major problem for a number of respondents was their personal arrangements (an issue
The first few days

which for many lasted more than the first few days and another which will be considered in more detail later). One person needing to move house from a town two hours away from their new institution would have welcomed the offer of some temporary accommodation, but although there was a relocation package it did not cover overnight accommodation while house hunting and the Polytechnic had no services to help a stranger to the area looking for housing or to rent accommodation. If it had not been for friends in the area this particular individual does not know what they would have done. The Polytechnic was also of no use later on when looking for employment for their spouse. Another respondent commented succinctly:

"The pressures of moving from another country (yet again!) and beginning a new life were, for the first couple of months, far more important than anything else."

This was echoed by yet another who was very grateful for the details of courses supplied in advance by the Head of Department, which could have enabled them to do much of the necessary groundwork for their lecture preparation well in advance, but in fact was able to do nothing because of "the grave difficulties arising from the problems of relocation and the search for suitable accommodation."

Recommendations

Get the 'welcoming' process right. Ensure that the new member of staff will be received by someone, that the facilities they will need are available, and that there is someone nominated to look after them, at least for the first few days.

Provide support for accommodation where needed.

Keep work demands, especially teaching duties, light for at least the first few weeks.
Formal Induction

Institutional

In some cases there was no formal induction, especially if the person was starting part-way through the Academic Year. In others, the type and quality varied considerably.

In many cases there were Induction Conferences ranging from two hours to three days in length, and they received mixed reactions:

"Conference content was variable from useful/helpful information to the other extreme - intense boredom."

"A great deal of information about size and structure which was highly interesting."

"It helped me to realise that I was not the only new member of staff."

"A two hour lecture-style session in the main hall with the Director (briefly) and deputies. Designed for all categories of new staff from manual workers to senior academics it outlined the structure of the Poly, finances, status etc., but could do little more."

"Just the event that puts me off (and cracks me up). Mass inductions in suits with surrounding vases of gladioli."

"Some of it was pointless."

"I did not feel I had learnt very much. A booklet would have been more useful."

"Formal induction was frightful! Our Director said, 'In the next few years forget quality, think about bums on seats!'"

"It was run once every two years...some lecturers had been [there] for almost that time already."

Some views, however, appear frequently and seem to form a consensus: that it was good to see key figures in the institution, however briefly, as it enabled one to put faces to names, and the opportunity to meet and talk with other new staff from other departments was especially welcomed. Too much information giving was a common complaint, the relevance of which was not seen at the time, and frequently the point was made that much would have been better provided in writing. One institution had regular updating induction meetings for all new staff throughout the first academic year, which were felt to be valuable.
Formal Induction

Very few of these centrally organised inductions made any attempt to actively involve the participants; similarly, very few paid any attention to questions of teaching and learning. Only several institutions offered sessions on teaching and learning, ranging from two hours to a week long Induction Course. The latter provided:

"a peer group from which we could form friendships and with whom we could discuss problems....and provided useful hints and ideas."

Someone with the former experience complained that:

"I was plunged into all sorts of teaching situations which were unfamiliar as I have no qualification in teaching. A longer induction course would have been helpful."

Only one institution actually offered a longer course for those with no teaching experience or qualification which runs for their first year, half a day per week; "a life saver...the highlight of my week" according to one of its participants.

Departmental

Departmental inductions, which were rare, tended to be informal.

"It was along the lines of getting to know the others in the Faculty in an informal way. While it succeeded in this it relied on the 'old sweats' present to impart knowledge...and left gaps."

Another was given an introduction to the department in very general terms and was told to ask whenever they needed to know anything. Although this was deemed good advice, and everyone in the department was very friendly:

"It can be very demoralising to have to ask question after endless question over the first few weeks. I used to go out of my way to ask anyone whom I had not yet asked that day."

Again the answer would seem to be the provision of key information in printed form. Where some departmental induction took place it was generally considered better than the centrally organised events:

"It was more informal and more useful - chat to divisional leader, meet colleagues, etc.".

One person complained bitterly that they had no introduction to their colleagues, and therefore took a long time to discover key personnel, and also had no clear outline of their first term’s duties:

"This made me apprehensive ...and should [also] have been available to colleagues."

Another complained that:

"Colleagues seemed busy with their own work so it took a while for me to feel fully integrated into the department."

At least one institution has a policy of assigning official mentors, but the new member of staff only discovered this later in the year, and largely blamed the fact that there is no timetable remission for this task for the failure of their mentor to materialise. In many cases departmental induction was made possible by informal mentorship, with one experienced member of staff voluntarily taking responsibility to offer help and guidance.

One department actually introduced new staff to the students, at a social evening for students at the beginning of the term. In addition, this particular respondent says they would have liked
Formal Induction

to have been introduced at the beginning of their first lectures to new classes as they felt awkward going in "'cold' when one is new and the students are all in the third or fourth year."

Recommendations

Induction should provide an opportunity for new staff to meet and establish links with other new staff.

Formal induction conferences should offer the opportunity to put faces to names of key staff, and an introduction to key services. Presentations should be brief, with the bulk of the information provided in written form (to fit in a loose leaf binder, enabling later up-dates, with coloured sections possibly?). Inductions should encourage activity, with tasks rather than talks. Keep the initial induction fairly brief and provide follow up sessions later in the year, by when staff may have a clearer idea of their needs. This might also better accommodate those staff who do not start at the very beginning of the academic year.

Department induction should address the immediate needs of new staff - meeting colleagues, and having courses, available resources and systems explained, etc. Detailed information should be provided in written form (a department section to go in the centrally provided binder, possibly?). The appointment of a department mentor for each new member of staff should be considered, but will clearly only be effective if such a scheme is taken seriously, with the mentor's role demonstrably valued through timetable remission and adequate training.
The first term

"Hectic, frantic exciting, terrifying."

"Hectic" is without a doubt the word which recurs most often in the various accounts. For the majority, the initial workload was a real problem, fitting in teaching, meetings, departmental duties, and research, where possible:

"There was very little time to prepare class work in as much detail as I would have liked."

"I can hardly remember [the first term] because I seemed to be only one lesson ahead of the students."

Work preparation, in fact, rather than the actual teaching hours was seen as the major time consumer:

"The sheer volume of work involved in the day to day preparation of lectures for all the new courses."

"An inevitable, exhausting task for new teaching staff."

"I found the preparation a long and tedious part of the process, requiring me to spend many evenings and weekends working into the small hours on lectures for the following day."

Perhaps the stress of this is most succinctly put by the following respondent:

"My first term teaching was horrific. I spent the days teaching and the nights preparing lectures. An experience I do not wish to repeat."

A minority of new staff were deliberately given reduced teaching loads for the first term, which, in the main, they appreciated. One department actually did the opposite working a policy of differential workloads, with less in the second year to allow more time for research; a policy the respondent concerned very much approved of.

There was also a minority who saw a high initial workload as a good thing:

"This proved to be a benefit as I was so busy, the time passed very quickly indeed."

"I worked non-stop but found it incredibly exhilarating."

In fact, someone actually complained that their first few weeks were actually light on teaching which meant that:

"although this gave me a good chance to prepare, I did not feel that I 'belonged' until my teaching load reached a normal level."
The first term

Another problem sited by more than one respondent was the "the culture shock [which] was tremendous," and they claim to have been "quite unprepared for the differences between doing a job and teaching someone else how to do it."

Recommendations

New staff should start with a reduced initial teaching load. However, some teaching should be expected early on, in a subject which is familiar to them.

Experienced staff should be encouraged to share teaching materials and other resources.
The year as a whole

"I coped" would seem to be the most common sentiment about the year, but in many cases the feelings are much stronger, and break down approximately in a ratio of 2:1 favourable to unfavourable. The former said things like:

"Wonderful! I loved the teaching."

"Very enjoyable."

"My experience has been very enjoyable and productive."

"Generally enjoyed my teaching experiences."

"Overall very enjoyable and satisfying."

"Very happy."

As one might expect the key features behind such statements would seem to supportive, well resourced departments, helpful colleagues and most of all successful teaching experiences.

The significant minority (a third!) with negative comments clearly experienced the opposite, and in some cases their reactions are very strong indeed:

"I got through it. Towards the end of the year I very seriously considered resigning. I felt isolated, tired, frustrated and inadequate."

"I was within a hair's breadth of giving up by the Easter."

"It was not a happy time for me. By the second term I had succumbed to 'nervous debility' and had to take two weeks' sick leave. This was due to a build up of frustration and anger from my experiences in the classroom."

After discussion with their head of department the latter respondent was given time to "think about staying in teaching. Counselling was mentioned but never actually arrived."

Possibly the most optimistic comment from one of these unhappy individuals was that:

"Having spoken to other lecturers, I think this initial erosion of confidence is a very common occurrence. It is followed (fortunately) by an upswing."

However this same respondent still admitted to feeling "extremely tentative about my value as a lecturer". The subject of teaching we shall
The year as a whole

return to and explore in more detail in the following section.

Another, less extreme issue identified is the time it takes to settle in. At the risk of stating the obvious, one respondent pointed out that:

"Everything has been so new - you were doing every part of it for the first time."

This may not be obvious to colleagues, however. Although some said that after about four months or so they began to settle in and feel at home, a number made points such as:

"As I became accepted as a member of staff people assumed that either I knew or understood what was involved in these events."

Others went into more detail about the problems of not knowing what to expect in the way of commitments other than teaching, which cropped up through the year:

"i.e. faculty and department meetings, invigilating, examiners' meetings, resits, etc. Having spent a year you know what to expect."

"As far as general academic procedures and regulations were concerned I had to 'feel' my way as I went along. The main problem with this situation appeared to be not how to get information (which was readily given if asked for) but what information to ask for in the first place."

"I found information on administrative procedures was very scant and struggled to understand the rules of the game."

**Recommendations**

Information needs to be readily available for new staff. If it does not already exist in accessible form, it should, and would presumably be helpful to established staff as well.

Established staff, especially mentors, should be aware of the new staff member's various commitments, what information is likely to be useful, and when.

Recommendations already made for the appointment of mentors, a department induction programme, and staggered, developmental institutional events have all, obviously, got implications for the year as a whole.
As we have already seen, a sizeable number of respondents claim their teaching to have been a pleasurable experience. This is not to say that they are uncritical of their experiences, however. In fact, those who were totally satisfied with their introduction to teaching were a very small minority. In a number of cases they had had previous teaching experience part-time or in F.E., and they were not necessarily the same ones who claimed to have enjoyed it. In fact, the latter were often the most critical. One respondent actually used the phrase 'sink or swim' about the attitude of their department, and that is the almost universal theme underlying most responses:

"I was plunged into all sorts of teaching situations which were unfamiliar as I have no qualifications in teaching."

"It was very unnerving to find myself thrust into a classroom full of students and left to get on with it. I could have been doing anything and no one from the Poly would have known better. It was too much responsibility and I would have liked someone sitting there for just a few classes, if only to say 'yes, that was O.K.'"

"I had little previous experience.....Basically I had to mug up everything the night before."

"I had no experience of preparing lectures.....I have been left to run my courses with almost no interference."

With numerous comments such as these it is easy to see how one respondent with previous F.E. experience observed:

"I cannot imagine how staff who have never been involved in teaching in anyway cope at first."

However, in some cases (I guess as in swimming) the approach appears to have been successful:

"I certainly felt I learnt a great deal about teaching inspite of no formal teacher training."

"I've totally changed my ideas about teaching and now care about my teaching subject for its own sake - not just as a way of making money through teaching!"

Unfortunately, this was not always the case as this strikingly honest admission reveals:

"I quickly discovered that I disliked teaching....I was not really prepared for lecturing 90 first years. I experienced some
discipline problems but on the whole I think I coped quite well. There was a paper aeroplane throwing fad for three lectures but I stamped on that. I think some advice on 'crowd control' would have helped a lot."

The majority claim no more than to have coped, spending a considerable time on preparation, as has already been stated, which one pointed out to be "very much an individual activity" and that, despite helpful colleagues, they found themselves very isolated, working alone, at home, for much of the time.

One summarised their concerns about teaching thus:

"My main fears at that time were: is there enough material, is it the right standard, do I understand it, will I be able to cope with the more awkward questions?"

Perhaps one of the most bizarre responses comes from an individual who actually was undertaking training during their first year, and successfully completed a Certificate in Education at a different institution but had their probationary year extended for a further year. The reason would seem to be largely because they admitted problems with their teaching to their Head of Department, but, in their words:

"My observed teaching practice reports [for the Certificate in Education] were most favourable so I put down my dissatisfaction to setting unrealistic personal standards. However, nobody at the actual Polytechnic has ever observed me [my emphasis] and I feel that given the decision on probation this is very remiss on their part. The final analysis on the exam results shows that I compare quite favourably with most of my colleagues"

In fact, only one respondent actually commented on having their teaching observed, and the outcome of that seems somewhat wistful:

"I was assessed on a number of occasions (4) by separate parties - we identified a few problems and they are being worked on...........they thought and hoped I would improve."

Another, somewhat different view of training is criticised by a lecturer who did have previous experience yet despite repeated requests was not ‘allowed’ to lecture but "was deliberately given a high volume of low-level teaching [demonstrating, running practicals], in order to train me in certain aspects of the subject."

Lack of appropriateness of the courses given to teach is another common complaint:

"I have to say that not a great deal of thought appeared to go into my allocation of courses, as I have completely taken over my predecessor's timetable. However, this was not a total disaster as I do have industrial experience on the one course I am responsible for, but prior to teaching it, had very little knowledge of the other."

Perhaps the most extreme comment on this issue, however, is the following:

"Apparently [the institution] has a habit of assigning lecturers to teach subjects for which they have no previous knowledge. This was seen rather cynically as 'staff development'."

A rare exception to this appears to be the respondent who admitted to being fortunate in that:

"The head of department consulted me about what courses I might take and I am teaching only in areas which are already to some extent familiar to me."
The teaching

However, even they went on to comment that it took them a while to work out the structure of the courses because "it was assumed you would know this."

Apart from help from individual colleagues, the most commonly cited support appears to have come from previous course materials and, more informally, notes, handouts, lecture outlines and the like left lying around by others. One poor soul who inherited a course part way through a year without any of these aids said:

"I have no clear memory of how I survived, although I believe I asked the question 'Did you look at this with X?' on many occasions."

Apart from the teaching itself, marking and assessment seems to be the other major area of difficulty, with the same complaints about lack of help and no preparation, it apparently being assumed that they would know how to do it.

"Marking assignments was the worst experience - 80 scripts all on the same question."

"Preparing exam questions was a hectic and difficult task the first time."

"[I had] no idea about assessment - what to give as assignments/how to mark."

"One of the hardest parts I have found and where I still feel the need for help is with assessments. How do you assess students more effectively?"

"I would appreciate help with assessment - how to mark essays and exams."

"Assessment was more tricky [than teaching], marking a nightmare...Nobody seemed willing to articulate a standard."

About the only support in this area seems to have been where individuals were able to exchange examples of students' work with colleagues, but this seem to have occurred only at the instigation, and in some cases the insistence, of the new member of staff. It is also a lot easier to organise on courses where teaching is shared than where the individual is solely responsible for that course, or part of it.

Other problems with teaching that were identified included the following list:

"Coping with difficult rooms/room arrangements, ethnic (and sex) minorities in the class, poor or no equipment."

"I'm still totally lost in the curricular development side of things. I would like a book/file explaining course validation, course revision - why you do it, how you do it, what happens next."

"It can be difficult if you, as teacher, are one of the youngest in the class."

"Rooms - spartan, small. Teaching methods depend as much on the environment. I found that group work is very difficult to get going in cramped quarters."

However, perhaps the most succinct and telling comment of all with regard to teaching, and therefore the most appropriate way to conclude this section, is the following observation:

"There appears to be a 'macho' attitude amongst academics that they do not need assistance with teaching methods."
The teaching

**Recommendations**

All new, inexperienced staff should be offered an adequate training course in teaching in Higher Education. See Appendix C

(It is interesting to note that the Swedish Government has just ruled that all teachers in Higher Education must, from now on, be qualified to teach.)
The facilities

It is a very small minority who are prepared to praise the facilities they have been provided with, and perhaps this is to be expected. One of these rare respondents actually notes that their:

"colleagues would probably shoot me for not moaning about resources, but in all truth I can't complain."

It is also worth noting that there appear to be significant inconsistencies within the same institutions, and simply because one department has good facilities is no indication as to the quality of others. However expected it may be, the catalogue of complaints is so long that it clearly cannot just be ignored, especially if, as one respondent who described all their facilities as "poor" went on to argue, we are to "achieve the concept of QUALITY."

Rooms

The following response, that "study space is generous [with a] large private office" is almost unique. Most respondents have found themselves sharing rooms which, after the possible initial benefits of getting to know these other colleagues and helping them to settle in, is seen by the majority to be a disadvantage:

"The office is cold, the roof leaks and the environment is not very clean. Three of us share the office which doubles as a coffee room for three others as well. (I work at home a lot!)

"I shared a small office...without any ventilation such as windows, the live steam pipes running through the office tended to make life uncomfortable. I recorded temperatures of up to 31C in winter and no lower than 23C in summer."

Location of rooms is another problem cited by some:

"My integration into faculty life...was not helped by my having a room in a separate building....This made me feel isolated and cut off."
Secretarial support

Again, praise is definitely limited and frequently makes the distinction between the quality, which may be good, and the availability of the support which in almost every case is deemed limited or inadequate.

The following are typical of the majority of responses:

"People are very willing to help but there is a serious shortage of support staff; secretarial staff especially are seriously overworked."

"Most of the staff are extremely kind and helpful, working longer hours than they should in order to get work done."

"Secretarial help is limited; there is just a part-time secretary for our department, but she is most capable and has been a source of helpful advice."

"Secretarial support is very minimal."

"Good clerical support was given even though their workload is large."

"Secretarial support was and still is very poor."

Some were not even this happy:

"Lousy typing/copying facilities with completely uncertain delivery dates; if you want it done, do it yourself."

A number of respondents also made the point that they had been better off in previous jobs outside education:

"Secretarial support is much worse than in my previous job as a librarian!"

"As a senior local government officer, I was used to having a secretary. The loss of this hit me very hard. I am only now coming to terms with the implications of this for my work..."

Interestingly, the latter juxtaposed their comment concerning secretaries with recognition that "a real bonus though is my own personal Apple Mac."

Only a handful of comments offered unreserved praise, such as the following:

"Secretarial assistance in the department is excellent and highly cost effective."

It may be significant that this respondent went on to say that they were provided with an Apple Macintosh and consequently the secretaries were freed for "more demanding and interesting work" and that "the department gets at least an extra eight hours a week from me at the keyboard."

Reprographics

Both quality and availability were criticised in almost every case, with "adequate" about the strongest praise. (To be honest "very good" is used once!) More typical responses included:

"I have found photocopying facilities to be inadequate, with only one copier available on site for an entire Faculty."

"There is free access to photocopying, although the machine is of poor quality."

"Photocopying is supposed to go through a centralised department...[and] it can take a long time to get things done."

"Long queues at the photocopier and long lead times at reprographics made copying of
The facilities

"carefully prepared handouts almost impossible."

Computing

This category probably elicited the most varied response, and it is clear that there are significant variances in provision, both between institutions and between departments in the same institution. A sizeable minority were provided with their own P.C.'s; the majority were not so fortunate. One unique response which praised all the other facilities that had been provided, cited the absence of Apple Macintoshes as their only complaint.

General/Other

Phone provision appears to vary widely from the positive extreme of “Telephone calls are unrestricted and we have private lines” to the negative “I am only allowed to phone long distance after 1p.m. and then only via the operator. Since I organise seminars this is incredibly frustrating.”

One individual actually found themselves even worse off than this, having to help organise the move of their department from one site to another, but with no provision of a telephone on the new site for most of the time that it was taking place.

One respondent commented specifically on the problems of working in a split-site institution, and the fact that “the only person who teaches the same subject... is located 23 miles away.” Isolation was also seen as the result, in an institution “with no staff or common room and no common time for a break. I often go for a week at a time without speaking to another member of staff.”

Having the facilities is one thing, but then having access to them was another potential source of problems:

“...The [Department] library was locked for a long while (incredibly irritating during my first month when I did not have a key)... Access to photocopying and the laserwriter is only available during office hours and not during lunch times...[and] I have almost lost my temper with one of the secretaries who keeps everything under lock and key.”

“My solution [to overcome queues at the copier] was to arrive at work early...[which] meant looking for a cleaner who had a pass key to open up the administration office and switching on and waiting for the photocopier to warm up before use. Any breakdown in the equipment or shortage of paper meant that I was unable to take students copies of the handout I had spent many hours preparing.”

“The use of the photocopier was a major problem initially. Since the available photocopier was accessed only by a staff card, of which there were only five in the department, they were therefore regarded as gold dust. Those who were known to possess these cards (invariably senior staff) forever denied their existence, which proved infuriating to later catch these particular individuals then using the photocopier and still refusing to lend them to anyone else.”

A number of respondents also specifically criticised the lack of provision for research:

“Research funding also proves elusive.”

“No provision for research if I had the time!”

Summation

While as already has been noted, there are ex-
The facilities

ceptions, and perhaps no individual’s view can be said to be entirely representative, the follow­ing terse response is probably closest to a sum­mary of the type of facilities provided for the majority:

"Facilities, DIRE! Cramped office, one phone and one dated P.C. between three, one pho­tocopier (always on the blink) for the entire...school."

Recommendations

Awareness and availability of resources, plus access to them, should be made as easy as possible. Keys, passwords, photocopy cards, etc. need to made available from the start and systems need to be explained, preferably in writing.

Careful consideration should be given before new staff are asked to share rooms. If they have to share, the personality of the person they are to share with, plus the possibility of shared interests in courses, etc. should be taken into account. If there is a choice, the new member of staff’s opinion should be canvassed in advance.
Work load

The majority commented on the time spent on preparation, especially at the beginning, as has already been said. Teaching hours varied incredibly from four to sixteen hours per week, and so did individuals' comments about their overall workload:

"I felt this was quite heavy for a new inexperienced member of staff. I found that I was spending many 'invisible' hours preparing work, marking assignments etc. I also had lecture notes to prepare for each week, and had to attempt to carry out research. This I felt added up to quite a large chunk of work to be thrown 'cold' into."

"Enormous! I was generally working in the evenings and one day at the weekend."

"I cannot complain since I have been given a reasonable load to begin with...and it is being increased gradually each year...At all times I am consulted about possible work and not simply told that I must do certain things. I think in this regard I am very fortunate indeed."

Research is not mentioned by a lot of the respondents, which may be significant, because when it is it is usually to point out insufficient time and resources, as in the following comment:

"It is seriously impossible to do everything I am supposed to do well. My research suffers as a consequence. I worry that I may be working in a job which is making me unemployable because I cannot keep research productivity to an acceptable level."

Recommendations

A reduced teaching load at the start, and support through sharing materials and ideas have both already been cited.
Social factors

Virtually all the social factors mentioned are to do with the problems of relocation and moving house (or not moving!), which are commented on in a considerable number of the responses. This was almost certainly exacerbated by the slump in the housing market at that time, but even at easier times these problems are likely to be there, albeit that they may be resolved more quickly, and are therefore an important consideration, considering the other inevitable stresses of the first year.

"In common with many other people we were unable to sell our house. The Building Society would not allow us to sub-let in order to pay a rent in the new area. It has been nightmarish...In order to survive we have done a deed of exchange viz. swapping houses in our former town, letting the small house we subsequently acquired and renting a house here for the past twelve months. we are hoping, eighteen months after first getting the job here that we will be able to move into a home of our own. Older, poorer, wiser, and much more stressed."

"Difficulties of relocating and obtaining accommodation ...suitable for family and self were worrying and enormously time consuming."

"The time surrounding the move was particularly stressful for the whole family, despite the fact that we were fortunate enough to have been able to actually move at the end of the first term. Moving house in term time would have been very difficult."

"I have had problems moving to x. My girlfriend lives in y and we alternate commuting at weekends. This is quite tiring and very expensive."

"I shared a house with four students during the week and travelled back to my home at weekends; a one way journey of some four hours by car, unthinkable by train. My car (an oldish one) broke down on three occasions and my nicotine and alcohol consumption went up. I felt a definite stress."

Another, having not moved house for family reasons travels a large distance to their institution daily:

"sometimes staying overnight. This has its problems and is not ideal but it is possible."

Even where there is no need to move, social factors were commented on in similar vein:
Social factors

"Traumatic! There is a great deal of stress on family life because you have so much work and so much worry.”

In fact, the only positive comments about social factors referred to the benefit of informal social contact, “mainly in the staff bar” in one case, and enjoying “various divisional events.”

Recommendations

Institutions need supportive and generous relocation policies.

Educational Development Units and Personnel Departments should offer new staff support in coping with the stress. Mentor preparation should also include training in helping with stress.

The stress of changing jobs should always be taken into account when considering the work load of new staff.

Informal social events should be arranged, at both institutional and departmental level.
Particular help and support

Institutional

"Nil beyond induction course."

This is probably the most succinct and typical comment.

Where there were additional comments concerning institutional support they were almost all connected with moving house:

"I received financial help from the University to cover moving costs."

"Very generous financial and logistical support from Personnel [Department]. Every effort was made to help us locate in this very expensive, packed area of the country."

Another respondent from the same institution also praised "the Student Accommodation Officer in particular, for all the advice and assistance offered."

Not all the comments concerning relocation support were favourable, however, as has already been mentioned in the section on the first few days. "Their attitudes to expenses were nit picking and payments were slow" was not an isolated experience. Perhaps this view is best summarised in the following observation:

"I have friends who work in commerce and industry who are given endless bridging loans, their old house is bought by the company, all removal costs are paid. The academic sector looks very pathetic in comparison."

Departmental

As might be expected, comments about heads of department were incredibly varied as demonstrated by the following remark:

"My head of department is extremely approachable and very helpful."

This can be contrasted with this experience:

"There has been some conflict with the head of department when I have inadvertently transgressed some 'unwritten rules' of etiquette which I had never been informed of!"

Another criticised their communication and management skills thus:

"I have full respect for her and feel that she runs a good department, but to my knowledge she has not been given any management training and often I think she has found it difficult to get the best out of my potential"
Particular help and support

because she has not fully communicated a situation to me."

In terms of more formal, departmentally organised support, it largely seems to have been lacking, certainly after the first few weeks.

"Some sort of appraisal from course leader or head of department would have been valuable."

Individual

At this level, as one would hope, if not necessarily expect, many respondents did find a great deal of support:

"Support has been at a personal rather than an institutional or departmental level."

"Induction was almost entirely by colleagues on an informal basis."

"Several colleagues within the Department have gone out of their way to help me, which I am grateful for, especially as they are all under a great deal of pressure as well."

"I think most, if not all, the staff here are keen to share material and ideas, and develop good educational methods. But everyone is also, to some extent, finding it hard to maintain morale. There is lots of mutual crying on shoulders!"

"My colleague was helpful and supportive."

"Support from colleagues has been excellent."

It is worth noting, however, that in almost all cases this support was largely unstructured, given on the individual's own initiative and as a result of goodwill.

Recommendations

None specific to this section that have not already been covered or will be covered later
What was especially unhelpful

It is quite clear that was especially unhelpful was lack of support, in a variety of forms, and at two levels. Lack of institutional support was criticised with particular regard to teaching:

"Interest in learning methods at the Poly is low...There is little encouragement given to staff development in this area."

"Perhaps my biggest disappointment was the lack of teacher training...this didn’t exist as the Polytechnic considered it too wasteful in time and money."

The second level where support was sometimes lacking was amongst colleagues:

"The prevailing atmosphere on the part of old hands tends to be ‘I’ve been through it, now it’s your turn.’"

"Bearing in mind that I taught seven different subjects I was disappointed at time to find that lecturers who had previously taught a subject were unwilling to pass on their notes to new lecturers."

"One or two [colleagues]...would happily let you make mistakes, then gloat afterwards."

"I was the victim of sexual harassment from two colleagues. Although I was supported in taking this through my own division, I could have done without it."

(It is perhaps worth noting that this was the only comment relating clearly to a gender issue; generally, there seemed to be no noticeable distinction between the sexes in terms of their experiences.)

Recommendations

New staff need support, most especially from their colleagues. A clear lead from the institution with a clearly defined, coordinated and integrated induction and training policy, including the requirement of department induction policies, would help to engender the desired ethos.
None of the comments which follow are particularly dramatic or earth-shattering, and have really already been covered, at least implicitly, in what has been said. What is probably most surprising, therefore, is that they have to be said at all and that these things were not already being done:

Clearly, if I had been given clearer instructions as to what was expected of me, I would have been better able to prepare.

It would have been good to be told certain basic things as one begins - how the university works (is supposed to work), who should help you with what problems, and the various departmental and faculty duties which are expected of you.

A handbook describing resources, back-up services, etc. would have been helpful.

I feel that my first year could have been made much easier if I had been given access to the simple logistics of the institution from the beginning instead of having to find out for myself.

It would have been useful in the month prior to the students arriving if I could have met other new staff. At least then we could have formed an informal support network.

There was no course...on teaching and assessment techniques...a longer induction course would have been helpful, with release from teaching commitments to attend.

I would have welcomed the opportunity to actually see others teaching.

Regular meetings with Division Leader, rather than ad hoc corridor chats.

Recommendations

There should be a well defined, coordinated and integrated induction policy. Most importantly, responsibilities need to have been clearly identified, articulated and allocated, both between the institution centrally and departments, and to specific individuals. Clarity of expectations plus practical information should be provided at appropriate times from appointment, on arrival and throughout the year. There should be a programme of training to teach in Higher Education.
Conclusions

Starting a new job is inevitably going to be a time of stress. Rather than institutions doing something to help alleviate that stress, and providing support, it is clear from the overwhelming majority of responses that new teaching staff in British Higher Education are largely left to their own devices, to get on with it, to survive if they can. 'Thrown in at the deep end' 'to sink or swim' were recurring metaphors. Where there was support, it was almost always ad hoc and a matter of chance.

The fact that so many still managed to enjoy their teaching, refrained from resigning and did survive the year is largely a testimony to their own resources and resilience than anything provided by the institutions. Just reading the catalogue of experiences recounted in this paper I would hope would spur the powers that be to take some action, but at a time when appraisal systems are being established, Enterprise training is being funded, and Warnock and PCFC have given quality of teaching such a high priority, institutions surely cannot continue to fail so many new staff in this way.

I find equally amazing the fact that, if you review the recommendations in this paper, they are largely common sense and would not be expensive to introduce. In most cases all it really requires is the will to do so.

In all honesty, it must be said that all was not totally doom and gloom. One respondent said "There has been full support in all the aspects of the post. I am sorry I cannot provide you with any more critical comment than this" and another, even happier, hopes, "May the next 20 years be as good." A third questioned my use of the word 'surviving' claiming it to be "too meek, too grovelling....[and disguising] the creative possibilities of education". I only wish all the respondents had been able to feel like this.

Giving the final word to one of the vast majority of the respondents, however, I cannot think of a more succinct or appropriate conclusion than the following:

"In the next few years it will become a great deal harder to recruit good quality staff. If we are to retain those that we have and recruit others, more care and attention needs to be given to developing and nurturing staff in an atmosphere of support."
# Appendix A

## An induction package for new lecturers, Contents page

(from the Department of Hotel and Catering Management, Oxford Polytechnic)

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SCED Paper 65 41 Surviving the first year
Appendix B: Lecturers' questions
(from Preparing to Teach, Gibbs, G and Habeshaw, T, Bristol, TES, 1989)

We have found that these are the questions which new lecturers ask. Check through the list and see which ones you don't know the answer to, and note down who you might be able to find the answer from. Add questions of your own which this list prompts.

.. about safety, health and welfare

What do I do if the alarm bell goes?
Who is the departmental safety officer? first aid person?
How do I report accidents? safety hazards?
Where can I go to lie down quietly?

.. about the rules

Are there rules about special clothing e.g. labcoats?
Are there rules about recording the handing in of work?
Are there rules about behaviour?
If I want to make a formal complain e.g. about harassment, a student, my head of department? How do I go about it?

.. about teaching

How do I book/charge teaching rooms?
Is it possible to make timetable changes? How?
How do I get messages to all my students?
How do I book audio-visual equipment?
Who do I phone when the OHP bulb blows? How can I get slides made up?

.. about research

Is there money? How is it allocated?
Who do I bid to for internal funds? How do I get the forms? What are the deadlines? Who can I talk to about it?

.. about the job

Am I on probation? What, in practice, does this mean?
What are my conditions of service in terms of contact hours? Holidays?
How does the institution enforce them?
Just how secure am I? What are my rights in employment? What is the institution's record on compulsory redundancy?
What are the pension arrangements, and are there alternatives, e.g. opting out?
If I have non-academic problems who can I go to outside my department?
How do I 'get on'?

.. about money

How is my salary calculated? When is pay day? How am I paid?
How do I claim for travel expenses? Reimbursement of fees, petty cash etc? Can I do consultancy and keep all the fee? Do I need to get permission?
..about day-to-day things

Where do I get supplies of chalk, stationery etc.? What access is there to computer terminals? Word processing? Secretarial support? How do I get reprography, e.g. class handouts? What's the turn-round time for regular copies? What's my total reprographics budget?

..about courses

How do I find out about the syllabus? How fixed is it? Is there a reading list for my courses? Can I modify them if I want to? How do I find out about deadlines for setting exams, submission of assignments, sending marks to the office etc? Is there an induction course for students? What is my role in it?

..about the library

What's the name of my subject librarian? Tutor librarian? What can I ask them to do for me? Literature searches? Student guides? Reserve collections?

..about administration

What admin do I have to do for the courses I'm responsible for? Who can tell me how to do admin jobs?

..about support

Is there anyone here (e.g. a mentor) who is responsible for me or for my probation or tenure? Who can help me with my teaching? How do I find out about courses in lecture methods?

..about the future

How can I find out if the institution/faculty/department has plans for the future which will affect my career decisions? Can I go on courses I'm interested in? How often will I get a sabbatical or study leave? How do I get promotion/additional increments?

..about my husband/wife/partner/family

Is there a staff club or staff association or senior common room and is my partner automatically a member? Can my partner use the library/sports/social facilities? Is there a creche? A nursery?

..about sport and recreation

What staff facilities/teams are there? Can staff use the facilities of the student union?

..about social life

Where do people meet for coffee or a beer after work? Does everyone go home at 5pm or are there lots of things going on in the evenings? Do I get a list of everyone's name, home address and telephone number?

..about domestic matters

Where are the toilets? Where is the nearest coffee machine? Is there a sick bay, rest room, doctor or nurse anywhere on campus?

..about important people

Who are they? Who are in the offices either side of mine?

..add your own questions
Appendix C: Initial training course for academic staff, Course Guide extract
(from Oxford Polytechnic's Certificate in Teaching in Higher Education)

Introduction

The Certificate in Teaching in Higher Education is a one year part-time course provided by the Educational Methods Unit, Oxford Polytechnic, for the Polytechnic's new academic staff. It comprises 9 taught modules, 2 projects and 3 teaching observations involving 90 hours attendance and a further 80 hours independent study. The course is compulsory for new Oxford Polytechnic lecturers with less than three years' full-time experience of teaching in higher education and no teaching qualification. It is open to others with a teaching role in higher education.

Course Components

The course consists of three main elements:

1. Nine modules, each of three weeks' duration, and each involving approximately 12 hours’ study with up to 9 hours’ attendance. The nine modules are made up of six compulsory modules and three optional modules from a wide range of choices. Up to two of the three optional modules can be taken using independent learning packages. Participants submit a self-assessment for each module and must satisfactorily complete eight modules. The independent learning packages require a tutor’s assessment in addition to the self assessment.

2. Two supervised projects written up in a report. These projects would normally be extensions of work carried out during the modules. Participants must submit two satisfactory projects; marking is pass/fail.

Additional elements include:

- an introductory meeting in the first week of autumn term
- a final meeting in the last week of summer term to plan future professional development
- tutorials to support project work
- three observations of participants’ teaching, two by a tutor and one by a peer
- a scheme of base groups which meet regularly to process experiences and solve problems brought by participants
- a diary to support discussion and reflection in base group meetings on the course
- the use of peers for observation, feedback and critical support.
Course objectives

- to widen the repertoire of teaching and assessment methods participants are competent to use
- to support participants in the teaching problems they face
- to increase participants' understanding of teaching and learning processes so that they can make appropriate and informed decisions about course design and choice of teaching, learning and assessment methods
- to foster the habit of reflective teaching and of professionalism in evaluating and improving teaching

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Each module is supported by a specially prepared learning package or module booklet, and each involves one set book. The intention is that participants complete the course with a valuable bookshelf resource.

N.B. At least three English Polytechnics run one year courses - Brighton, Newcastle and Oxford (the latter also available by distance learning), the London and South East Regional Consortium have a group working to develop a common approach to initial teacher training in HE for their region, and there is a collaboratively developed course in Scotland being run in RGIT, Paisley College and Queen's College, Glasgow with other institutions planning to join them.
Appendix D: Useful References


Gibbs, G. and Habeshaw, T. *Preparing to Teach*, TES (Bristol), 1989


Do initial training courses have an impact on university teaching? The evidence from two evaluative studies of one course

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Do Initial Training Courses Have an Impact on University Teaching? The Evidence From Two Evaluative Studies of One Course

Chris Rust, Oxford Brookes University, UK

SUMMARY

Initial training courses for teachers in higher education are now widespread in many countries and about to be given increased importance in the UK by the new Institute for Teaching and Learning but there appears to have been virtually no research into their effectiveness. This paper summarizes evidence from two evaluative studies of the initial training course at Oxford Brookes University, UK, and concludes that some claims can be made for the course’s effectiveness.

INTRODUCTION

Initial training of teachers in higher education is now widespread in many counties around the world, including Norway where it is compulsory, although the rationales and patterns of provision differ widely (Gibbs, 1998; Gilbert and Gibbs, 1998).

In the UK, the Staff and Educational Development Association (SEDA) currently recognizes 51 courses providing accreditation for teachers in higher education, and there are numerous other individual courses outside the SEDA scheme.

The newly formed Institute of Learning and Teaching has been warmly welcomed by the vast majority of “stakeholders” in higher education, and there has been widespread support for the institute and its aims”; according to Alison Utley (1999): ‘Membership will not be compulsory but it is expected to become the norm for both new and existing teaching staff in higher education. It is likely to be a condition of promotion in the near future and could become an important element of university funding formulas’. How will membership be obtained? Although there is controversy about the detail, the route to initial membership, at least for staff new to university teaching, will almost certainly be through an accredited course (or programme).

Obviously training courses have a cost, both in terms of hard cash and staff time. But what evidence is there that such courses achieve anything and that their expense is justified? There are certainly a fair number of sceptics in the academic community who are not yet persuaded. ‘We will not turn an academic historian into a history teacher merely by making her attend a course in teaching skills’ asserts Rowland (Rowland et al., 1998, p 135). ‘Academic teaching is about imparting knowledge and is not reducible to skills’ states Furedi (Rowland et al., 1998, p 137) in the same article. So what evidence can be offered to doubters like Rowland and Furedi that such courses can actually have a positive impact? How do we know that such a commitment and investment in time and money can actually achieve better teaching, and ultimately better learning?

REVIEW OF THE LITERATURE

In a recent review of the literature, Gilbert and Gibbs (1998) point out that other reviews have been highly critical of the limited quantity and quality of research evidence of the impact of educational development activities on the improvement of teaching and learning (Levinson-Rose and Menges, 1981; Weimer and Lenze, 1997). Much of what research there has been has tended to focus on distinct educational development activities – video feedback (Dalgaard, 1982; Shreurs 1998), student feedback (Murray, 1983; Wilson, 1986), mentoring (Cox, 1995), workshops (Rust, 1998) – rather than looking at initial courses or programmes as a whole.

One study by Nasr et al. (1996) did find that Australian
higher education teachers with a post-graduate teaching qualification received better student feedback ratings than those without such a qualification, but those choosing to attend such courses are generally self-selecting, and there was no control for aptitude or motivation.

Gilbert and Gibbs (1998) go on to argue that different kinds of programmes may be based on different theoretical frameworks and may therefore achieve different kinds of outcomes against which they should be judged. They suggest six different theoretical models:

- Behavioural change models – which focus on changing/developing the teacher’s behaviour in the classroom (Murray, 1983, 1997).
- Developmental models – the teacher’s focus of attention changes (develops), with training and experience, from self to subject to process to student (passive) to student (active) to student (independent) (Kugel, 1993; Nyquist and Sprague, in press; Sprague and Nyquist, 1991).
- Conceptual change models – that teachers’ conceptions of teaching are linked to their teaching intentions and the strategies they use and therefore their conceptions need to be developed/changed (Trigwell and Prosser, 1996; Ho 1998a, 1998b).
- Reflective practise models – the development of reflective practitioners (Schon, 1983).
- Student learning models – which focus on resulting student approaches (as measured by the ASI (Entwistle and Ramsden, 1983)) perceptions of their learning environments (as measured by the CEQ (Ramsden, 1991)) and learning outcomes (Angelo and Cross, 1993; Dahlgren, 1984).
- Hybrids – either implicitly or explicitly combining some of the above.

However, with the exception of one study by Ho (1998b), who has demonstrated that participants in a particular training programme have changed their conceptions of teaching as a result of that programme, they have been unable to find any study which positively evaluates an initial training programme from the perspective of any one of these models. As a result, they have developed their own evaluation toolkit and are undertaking their own major research programme to identify the impact of initial training on university teaching. While the results of this are eagerly awaited, the intention of this paper is to add a little to this paucity of information by reporting the findings of two evaluations of the course at Oxford Brookes.

THE BROOKES’ COURSE

There has been some provision of initial training for new teaching staff for over 15 years, but the course in its present form has been running since 1993. The course is compulsory for new teaching staff with less than five years teaching experience in higher education, is part-time for one year (normally), meeting for an afternoon (3 hours) a week for the first term (11 weeks), fortnightly in the second term, and only at the beginning and end of the third. The course is focused on prescribed outcomes and values which have to be successfully demonstrated. This involves the production of a portfolio of evidence, is based around a learning contract, and also uses self-profiles. Teaching is observed at least three times (twice by tutors once by a peer) and assessment of outcomes is carried out using a mixture of tutor, peer and self assessment. The course is recognized by SEDA as well as receiving academic credit from Oxford Brookes. Typically, there are between 20 and 35 participants grouped across disciplines in tutor groups of between 6–8.

In terms of the Gilbert and Gibbs models it explicitly espouses the reflective practise model (and reflection is both a required outcome and a value in the SEDA scheme) but in reality it at least implicitly (through the different contributions of the tutors) propounds aspects of all the other models to some extent. Although an internal evaluation is carried out at the end of each year (usually involving both a questionnaire and some qualitative discussion with the participants) with generally positive results, it was felt that more in depth evaluation was required if the course’s impact was to be gauged.

THE TWO EVALUATIONS AND THEIR METHODOLOGIES

Evaluation 1

The first evaluation was a questionnaire and focus group study involving participants from three cohorts of the course. In 1996, when the course was in its third year in its current form, Linda Williams was commissioned as an external consultant. She had had recent experience of leading a similar course in another university. She developed, administered and analysed a detailed questionnaire consisting of a series of attitude statements with which respondents were asked to agree or disagree using a Likert scale; together with a variety of open questions inviting responses of a few
sentences. There were 32 statements about aspects of whether the course had made a difference (see Appendix), plus three open questions, and then 10 statements on each of nine aspects of the processes of the course, each with one open question. A slightly modified version was created specifically for the cohort who were currently taking the course. All staff who had undertaken the course in the two previous years (and were still working at Brookes) and those currently taking the course (two-thirds through it at the time of collecting the data) were sent the appropriate questionnaire (56 in total). Thirty-four responses were received, seven from 1993–94, 15 from 1994–95 and 12 current attenders (1995–96). Participants from all three cohorts were also invited to attend a focus group interview and seven, covering all three cohorts, did so. Some further telephone interviews were also conducted to explore specific areas of enquiry raised by the questionnaire responses and the focus group. A report summarizing the findings was produced in May 1996.

Evaluation 2

The second evaluation was carried out through guided conversations, followed by the completion of a questionnaire, with twelve members of the same course cohort, a year after the course had been taken. In 1997–98, John Willmer was spending sabbatical leave (from State University of New York, USA) at Oxford Brookes and agreed to undertake an evaluative study focusing on participants from the 1996–97 cohort – one year after Williams, on the course modified in the light of her report, and one year prior to this study with the course completed (or at least the ‘taught’ component). Of the 24 in that cohort, 16 remained in the vicinity of Brookes and of that 16, 12 willingly responded to being interviewed. The 12 were a very mixed group: two men and 10 women; at least three had only part-time appointments; nine different disciplines were represented and three participants voiced that they had had substantial prior teaching experience before joining Brookes. The methodology used was a 30 minute (minimum) guided conversation with each participant, which was tape-recorded after which the participant was asked to complete at home a condensed and modified version of the Williams’ questionnaire, seven of the 12 returned this. The major modifications were that participants were asked to complete the open questions of each section prior to responding to the attitude statements, and only to respond to the attitude statements that had specific relevance to how they had responded to the open questions. In finally recording and reporting these scores, Willmer condensed the five point scale to a three point scale and only reported accumulated values where 50% and over had shared perceptions. The results of the study were written up by Willmer in June 1998 as a personal narrative.

Both studies provided a great deal of information on individual aspects of the organization and processes of the Brookes’ course, both positive and negative, but only the general outcomes relating to the impact and effectiveness of the course as a whole are reported in this paper.

Outcomes of the Williams’ study (evaluation 1)

Thirty-two out of the 34 respondents were confident that they had a wider range of teaching and learning methods or techniques to call upon as a result of the course. Twenty-seven out of 34 believed that they were better teachers of their discipline as a result of the course, with only two disagreeing. Fifteen believed that they more effectively conveyed enthusiasm for scholarship in their subject. Although 11 still tended to worry about their work, 26 also enjoyed their work more (there was strong agreement here). More than half felt more capable of solving their problems more effectively, and that these problems were addressed by the course.

Twenty-five felt they were better at assessment as a result of the course and 29 believed that their range of potential strategies had expanded. A number of respondents also showed in their responses that they believed assessment to be integral to course design and some could give specific examples of innovations they had introduced as a result of the course.

Of the 34 respondents, 11 were certain that they had not been performing well before the course, 11 felt that they had been performing well and the rest were uncertain. However, those who felt they had been doing their job well before the course were not necessarily unaffected by it since 26 respondents in all agreed that their ideas on teaching and learning changed as a result. Only three claimed to have undergone no change at all, and the remainder (five) were uncertain. And there was evidence among a few participants of a dramatic conversion to new ideas and a belief in having undergone a significant personal change.

Of the skills they most appreciated having learnt on the course, the skills of planning and course design were the most valued. Thirty-three of the entire sample believed that they plan better as a result of the course, and this referred to planning at all levels from individual lectures to the design of a course. Twenty-six
of the respondents also agreed that they now took a more reflective approach to their work, nine of them strongly.

From the overall pattern of responses, Williams identified four types of respondent:

(a) people who were satisfied that they had picked up sufficient ideas and tips to make improvements in what they do;
(b) people who had developed their ideas, gained in confidence, had reflected to some extent and who use their learning to solve their day-to-day problems;
(c) people who had found certain parts of the course extremely enlightening, had reflected upon them and had applied what they had learnt to most areas of their job; and
(d) people who had a holistic view of what the course had done to change them and their approach to teaching and learning. They see every aspect of it as an illumination of the teaching role, and it has transformed the way they do their job.

In terms of the Gilbert and Gibbs (1998) theoretical models, (a) and (b) would seem to illustrate success in terms of having achieved behavioural change, (c) would suggest additional success in developing reflective practise, and (d) would suggest additional success in bringing about conceptual change.

Linda Williams summary of the report includes the following:

- The course has been successful for most respondents, who feel that they are more confident, more skilled and more efficient as a result of taking the course.
- Most participants feel more empowered to innovate and change ineffective practices in their schools.

Outcomes of the Willmer study (evaluation 2)

In each of the 12 (half of that year’s cohort) interviews or ‘conversation-pieces’, Willmer started by asking the participants to compare the experiences of their last two years’ teaching – the current year and the previous year, which was the year of the course. (He then went on to discuss in detail different aspects of the course’s organization and the processes used, which are of less direct relevance to the focus of this paper.) What follows are verbatim statements from those selected by Willmer, occasionally with his words of clarification in parenthesis, from each of the interviewee’s 12 answers to this first question. Because he was selecting from much longer transcripts and the statements chosen can only be illustrative, in each case Willmer has attempted to summarize the overall impression given by the interviewee and the predominant message gained from the interview as a whole. It is not intended that anything can be generalized from these summary descriptors. It can, however, be seen that there is considerable similarity in many of the following comments quoted, out of which a fairly strong picture emerges of the effects of the course.

(1) The admittedly ‘naive’ beginner:

I was really new and stressed out at the beginning...a new job and I didn’t know anybody at the University and I had never thought about there being any learning theory...but I soon discovered that I was learning a lot...I saw that I needed help...before, I didn’t know how to organise my lectures...now I think about the type of activities I can include...I had discovered ‘learning outcomes’.

(2) The course has affected a complete change-round:

I have utterly and completely changed from last year...I have been designing an MA course, producing a handbook and have been applying everything I learnt very directly...I am constantly thinking about assessment as I prepare course materials...I know the structure of teaching/learning [learning theory] and can concentrate on the content...the transferable skills, the discipline skills, the learning outcomes...the lot! I do not have to refer back to [last year’s course materials] documentation that often, but when there is the need I find it invaluable.

I now think from a student’s point of view. At last!

(3) The born (sic) teacher:

I really like teaching so it [the Course] was not something that I had to worry about...I have always tried to teach properly, so that I can get results from the students in the least painful way.

Sometimes you forget about the idea of good practices, so it is nice to be reminded [by the Course]...and in my teaching last year I tried to apply what we were learning [weekly] all the time...every week there was something useful to take away...I [regularly] practised the ‘reflective cycle’...it drew my attention to some things that I had never thought of before...and then there was the importance of the profiles...I liked those. The opportunity of constantly thinking about what I was doing...what I was supposed to do...I am now much more conscious about what I do as a professional.
(4) The already converted, but the course provided welcome additional inspiration:

I was really very enthusiastic and I wanted my students to learn from me ... I was keen to absorb whatever I could to make me function better as a teacher ... yet at times I felt uncomfortable [in the Course] ... it was unsettling because it was obvious that there was a great deal about teaching that I needed to know ... I wanted to make the students' experience more valuable so the combination of the two [years] really made me think ... all the time ... that was the best part ... Today I show less anxiety ... I have recognised that growth experience is developmental ... it is this development that is more apparent to me now that I have completed the Course.

(5) The eternal learner:

The Course now, today, is truly still in my head ... all the time. It has had quite an impact on me ... I no longer think as much about what I am teaching but what the students are learning ... and this has been quite a change for me and I could not have got there on my own ... I am convinced that without the course I wouldn't have got there ... I would not have changed ... it [the learning process] is with me all the time now ... whatever I do. ... [and] I want to be [continue to be] observed and given advice ... I want to continue to improve ...

(6) A possible department/school 'change agent' in-the-making:

The biggest thing is about [my application in Year II] learning outcomes ... very useful, very helpful ... it really makes a difference when I am planning my teaching sessions ... when I am struggling over the process and the content and I just keep taking myself back to what do I want the students actually to do at the end of it all ... what do I want them to have learned.

[This] didn't really come home to me until my final observation when my tutor got me to go back [over my notes] and talk about outcomes ... I then also knew that I had understood 'reflection'.

So, for me teaching courses is about 'the distance travelled' by the students but of course I travel too ... I must evaluate students differently ... how far they have travelled is as important as [imposing] absolute standards [but yes] I know standards are important as well.

This term I have found myself judging my colleagues ... picking out those ones who haven't done the Course ... I know, because I can see they haven't thought clearly about what they want students to have learned.

(7) Please, break me in slowly; this interviewee had given up the course during their first year, and completed it in their second (an argument for having the course after the first year's teaching experience):

I was simply plunged into teaching for the first time really, and having started as a leader on a post graduate course, with quite a heavy work load in terms of teaching and certainly a significant administrative workload ... to actually be requested or required to take, in the first year, immediately, a course on teaching ... I don't feel was as helpful to me as perhaps a later start may have been ... to start straight away without time to reflect.

It became quite clear that I wasn't going to be able to do the Course in the way that I wanted to, so I deferred in effect ... and having done some teaching the first run through ... the Course in the following year made much more sense to me ... I was now able to apply ideas and had [more time] to reflect on what I was doing.

But the Course is very professional and I got a great deal out of it ... and the biggest plus for me was the change ... away from standing up and doing the lecture approach to [an emphasis on] student engagement and involvement ... the constant reminder of using students as a resource ... gradually I have recognised the benefit of that approach ... it also had a lot to do with the way the Course was delivered.

(8) The sceptic who changed:

I was one of the greatest sceptics at the beginning ... but previously [I know now] that I was lecturing and that was all I was doing ... I am very conscious of my past failings [some 2-3 years previous experience - part-time] and now have the tools to overcome them ... I was extremely intrigued [with the Course] ... with all the different teaching methods that I found myself being very experimental. I have surprised myself, honestly.

I am now so much more circumspect about how to develop courses ... I have experimented so much with what works with our students ... in the past I simply wasn't discerning enough in the type of methodology that I caused all sorts of problems for myself ... now I want my students to get the highest marks that I can possible give them, as well as [their] becoming competent professionals

I would say that as a direct result of this Course that I have had the guts to introduce three [supporting] seminars in maths ... I've done it once and I shall be repeating it ... I assessed what was needed, I assessed which students needed to come to which seminar, based on an induction [diagnostic?] test that I devised myself. I could never have done this without the Course.

(9) The researcher (> teacher) who has become more of a teacher:
I have to say that I learned an awful lot during the course and now have a completely different approach to teaching my modules ... I had all my research skills and all my discipline skills but I knew very little about [their] application [to teaching].

It is possible that a change [in me] might have come anyway because of the Oxford Brookes' 'outcome-based-learning philosophy', but in early years [of teaching] it is important to have someone guide you through the process ... I needed to learn how to ... facilitate my teaching ... especially in structuring my lectures.

I now stop and question what I have done what I am doing and I get regular feedback from my students. I use the 5 minute feedback exercise regularly. I use the stuff that I think works. I ask students if I am adapting to [my stated] the learning outcomes ... what issues need to be addressed more ... [I say] ... this is where [I think] you [the students] should be with the learning outcomes ... what is still unclear? How can I [further] help?

(10, 11 and 12) The experienced but nevertheless still grateful [extracts from three conversations]:

[10] I have taught before ... But this course, all the same, was invaluable ... it focused attention on important elements ... it generated ideas ... to do it [course preparation]better. [I] was much more informed.

So, all in all, I am quite pleased with the changes that I have made ... my courses have moved on a long way ... it [the Course] could have been a repeat [of what I already know] but there was a lot of new stuff coming through all the time ... so many new hooks [hints and tips] ... so many [other] different ways to do things.

[11] I think, in an ideal world I would have done the Course sooner [in my career] because I think it is of most benefit and interest for people when they first come to teaching ... it came at a very useful time for me, however, because of this whole accreditation business ... I found myself on a steep learning curve ... I had not been trained as a teacher so becoming familiar with a lot of terminology and language in Higher Education was really useful.

The Course helped me to gain a high degree of confidence [in HE matters] ... in how to change my teaching style ... in a sense I do believe that the best teachers don't have to do any course ... they teach themselves [how to teach], they have a natural enthusiasm ... but I am not a natural teacher, I am a teacher by default, so for me to have a very 'teacher-process-oriented course' supported with a rationale of how I can change, has been very useful.

[12] I have always been told that I am a good teacher, that I am good at what I do but [until this Course] I have never really thought seriously about why [I am] ... I had come here [to Oxford Brookes] as a leader and I needed this [the analysis of teaching] if I was going to be able to cope with the new situation.

I was responsible for [taking a course through] a validation for a visiting external agency and the Course helped me think clearly about aims and outcomes ... and the way I wanted to formalise things [in the documentation] ... the Course then, has made me a much better manager of student learning ... it had given me lots of ideas.

In terms of the Gilbert and Gibbs (1998) theoretical models, all of the comments quoted cite behavioural change, but virtually all of them also suggest that deeper conceptual change has taken place, and most are claiming that they are now reflective practitioners – and were able to speak about their teaching during the interview in ways that would support that claim.

In terms of the four categories identified by Williams, none of the twelve are in the first 'ideas and tips gained' category; perhaps with the benefit of time and distance, all have clearly gained more than that.

In the supporting written questionnaire exercise with regard to the vital and overarching question 'Has the course made a difference?' with its 32 possible choices (see Appendix) the seven (of the possible 12) respondents selected 13 as most relevant to them, and all were positive.

Three of the responses were chosen by six of them:

- I am able to plan better courses and lessons as a result of this course.
- This course makes you develop a more reflective approach to your work.
- I am now more skilled as a teacher of my discipline.

Five chose to affirm:

- Every teacher in HE needs a Course like this.
- I can make use of a greater range of assessment methods.
- I have a wider range of teaching and learning strategies to call upon.
- I constantly evaluate and improve my teaching and to state it was not true that ...
- My ideas on teaching and learning are substantially the same as before.

Four chose to affirm:

- I am able to make a better job of assessing students' work.
CONCLUSIONS

Although this paper is only concerned with one course in one institution, it does summarize data from two separate independent studies. Although the two studies focus on the participants’ perceptions of the course’s effect on them, the two studies combined do consider data from four different cohorts. And from all this data there does seem to be a consistent message that the course has had a positive effect for most of the participants, even if the effects are, not surprisingly, varied in both substance and amount from individual to individual. The findings are also consistent with the course team’s impressions gained over the years through assessing portfolios, teaching observations, and individual discussions with course participants—and if anything they are more positive than these impressions. They are also consistent with the evaluative findings of similar courses at University of New South Wales reported by Andresen (1995) which led him to conclude that such courses are ‘very likely to exert long-term and wide-ranging impact on institutional culture and practices’ (p 50).

It would therefore seem legitimate to suggest the following conclusions:

- The course has had an effect on a substantial number of the participants, even if we make the pessimistic assumption that non-respondents might be more negative in their views.
- In almost all cases behavioural change has been achieved.
- In many (possibly most) cases the changes are deep, going well beyond hints and tips in teaching practice and affecting beliefs and attitudes and resulting in theory applied in practice—in other words, conceptual change has been achieved.
- The course’s stated aim to develop reflective practitioners would seem to be largely successful.
- The impact of the course goes well beyond classroom practice to affect and influence and inform many of the other functions of a teacher in higher education.
- The impact of the course also goes beyond its primary developmental aims regarding teaching and learning through also providing things such as support, induction and networking.
- The changes may be more obvious to the course participant later, looking back, and this raises questions about when may the best time to evaluate such courses.

While we would like to believe that the course at Oxford Brookes is of high quality (in fact in his 1996 report, the external examiner described the course as ‘exemplary...probably the best of its kind’) and it would not be possible to generalize these conclusions and assume that similar outcomes are necessarily achieved in all such courses, we are also not arrogant enough to believe that such outcomes are unique to the Brookes’ course.

It also needs to be emphasized that the course is not without its faults, the two studies did include criticisms, and we are constantly trying to make the course even better. Those criticisms have not been included, not because we want to give a false impression of how good the Brookes’ course is, but because they tend either to be about relatively minor details of the course’s organization and delivery, or related to issues specific to Brookes, and therefore are not essentially relevant to the purpose of this paper.

Most importantly, it does have to be admitted that the biggest weakness in these two studies is the absence of any data relating directly to student outcomes. Although hard to imagine, it must be conceded as at least theoretically possible that despite the impact on the staff the resulting student learning may still not have improved, and ideally any further evaluative study ought to try and gain data from the students as well.

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APPENDIX

Attitude statements used in both studies

Has the Course made a difference?

1. Every teacher in HE needs a course like this.
2. I was already performing my role well before going on the course.
3. The course is helping me to do my job more efficiently.
4. I enjoy my job more as a result of attending the course.
5. I am able to solve many of my problems connected with teaching and learning.
6. My ideas on teaching and learning are substantially the same as before.
7. I am able to plan better courses and lessons as a result of this course.
8. I am able to make a better job of assessing students' work.
9. I can make use of a greater range of assessment methods.
10. I am more confident of my opinions when arguing about pedagogic issues with colleagues.
11. I have a wider range of teaching and learning strategies to call upon.
12. This course makes you develop a more reflective approach to your work.
13. I constantly evaluate and improve my teaching.
14. I tend to worry less about my job.
15. The course makes you change the way you look after your students.
16. I find I spend less time preparing lessons now.
17. This course makes you more aware of your responsibilities with regard to equal opportunities.
18. I am giving more effective support to disadvantaged students as a result of the course.
19. I am now more skilled as a teacher of my discipline.
20. The course addresses the practical real-life problems I face every day.
21. I am a more effective team member in my school.
22. There is resistance by colleagues to ideas and values I am developing on the course.
23. I am able to influence colleagues when arguing for improvements to the curriculum.
24. As more people go through the course, the climate and culture of the schools will change for the better.
25. At present it is hard to make any impact on the way things are done in my school.
26. Colleagues are always interested to hear new ideas from me.
27. Managers in the school are enthusiastic about the ideas and values I am developing while on the course.
28. It is better to work independently towards your own goals and not worry about other people's views.
29. The course is helping me to grasp the way the university systems work.
30. I am becoming more confident about contributing to university committees and task groups.
31. The course would be a good preparation for staff who wish to progress to a management role in HE.
32. Heads of school and other managers should all take this course.

The impact of educational development workshops on teachers’ practice

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REVIEWS

NEWS ABOUT ICED
The impact of educational development workshops on teachers' practice

ABSTRACT

Workshops are common practice as a staff and educational development tool in higher education around the world, yet while it is common to seek participants' immediate reactions there has been little attempt made to measure their impact. This paper reviews the available literature on the effectiveness of workshops and reports the findings of a study into the effectiveness of 33 workshops delivered by the Oxford Centre for Staff and Learning Development over a four month period. The study used questionnaires at the end of the workshops and four months later, and these were followed up by telephone interviews with a sample of participants. The study demonstrates that workshops can lead to changes in practice, and that these changes are themselves deemed to be successful by those involved. In addition, where at the end of a workshop participants report that they are likely to make changes this can be used as a reasonably accurate predictor of subsequent change. The features of workshops identified in end-of-workshop questionnaires which are linked with likelihood of subsequent change are also reported.

Introduction

The Oxford Centre for Staff and Learning Development (OCSLD) is the largest provider of staff and educational development in British higher education, through consultancy, workshops and publications. In 1996 about 200 days of workshops were run by a network of facilitators in institutions of higher education around the country. There is an understandable concern as to whether these workshops have any effect.

Each workshop is evaluated using a feedback questionnaire completed by participants as they leave the workshop. The data is used by the OCSLD to make decisions about whether to run the workshops again and to re-employ facilitators and by the facilitators to improve their practice and their workshops. The facilitators meet annually to compare and discuss their feedback ratings. The OCSLD prides itself on the positive feedback and how highly the workshops are rated. However this could be seen as mainly a measure of participants' satisfaction, providing no evidence that the workshops achieve any changes in participants' practice. Any information obtained about subsequent changes tends to be through informal and often serendipitous routes, and are largely anecdotal.

In a recent survey by Wright and O'Neil (1995), teachers in higher education in the UK rated workshops as the third most likely practice to improve their teaching (after 'recognition of teaching in promotion decisions', and 'Deans/Heads fostering the importance of teaching responsibilities'). In the same survey, workshops were ranked the fifth most likely practice to improve teaching in Canada, thirteenth in the USA, fourteenth in Australasia, making them seventh overall out of a list of thirty six practices. There is clearly varied confidence in the impact of workshops, even if confidence is relatively high in the UK. There is a continuing demand for OCSLD workshops, both in the UK and in other countries, but it was decided to undertake a study to check whether this confidence and demand has a basis in evidence of impact.

Previous research in this area

A review of the literature revealed very little previous work in this area other than some American studies. In what claims to be the first
review of this literature, Levinson-Rose and Menges (1981) assert that 'workshops and seminars are probably the most frequent but least evaluated instructional improvement activities' (p. 406). Weimer and Lenze (1991) in their subsequent review found that little had changed in the intervening decade: 'actual research on workshop effectiveness is so meager that it makes assessment across any dimension a moot point' (p. 301). They also found that where there had been assessment: 'the bulk . . . if it occurs at all, occurs at the level of faculty attitude as reported by them' as with OCSLD's workshop evaluations, and also in the survey by Wright and O'Neil (1995). Weimer and Lenze (1991) conclude by expressing 'considerable concern . . . about the extensive use of a method to improve instruction with so little corroboration of its effectiveness' (p. 305).

In the UK, Badley (1992) while stressing the importance of workshop evaluation, also acknowledged that it does not provide evidence about longitudinal change or improvement. The only UK study that has looked at whether subsequent change has occurred following a staff development activity (Johnson, 1992) was concerned with only two events, and they were day-long conferences rather than workshops. But, encouragingly, the findings were positive: 'participants who agreed to be contacted three to six months after the conferences (55% of all attenders) were asked to comment on their satisfaction of the conference related to their personal objectives. Out of the 51% who responded, 63% and 59% respectively reported satisfaction in the two conferences. Most significantly, however, all the respondents reported some form of resulting action or activity back in their own institution.'

Eison and Stevens (1995) asserted that measures of participant satisfaction [in staff development workshops] do not provide sufficient direct evidence that a faculty development program has stimulated instructional improvement leading to enhanced student learning . . . interviews with faculty and students, detailed examinations of course materials, and analysis of personal or videotaped classroom observations could provide more convincing evidence of documented change. Regrettably, one finds little evidence reported in the published literature that 'is type of data is collected to assess program impact.' (p. 217).

There is no consistent definition of 'workshop' the above literature. In this paper a workshop is defined as a facilitated event normally lasting one day, for a group of between about 12 and 24 higher education teachers, which involves some degree of active participant action and interaction. It is therefore distinguished from a conference, which is characterized by mainly passive involvement, with a large group, or a seminar, which is shorter and involves interaction but no action, with a smaller group. The workshops studied in this paper varied considerably in their focus and process, but were all led by one facilitator in an integrated event rather than consisting of a succession of speakers or separate components.

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**Research intentions**

The initial research intention was to see if OCSLD workshops lead to changes in participants' practice, and if they did, to find out whether these changes had had positive effects. As the project progressed, it was also decided to try to identify which characteristics of workshops are most closely associated with changes in practice.

**Stage I: Questionnaires and evaluations**

The first stage of the study involved a quantitative analysis of questionnaire responses to a 100% sample of the 33 workshops conducted by the OCSLD over a four month period. These workshops were conducted by a total of fourteen different facilitators and attended by over 500 participants. Four months after each workshop, a questionnaire was sent out to all those participants who had volunteered their name on their original evaluation form. The questionnaire asked to what extent their teaching practice had changed since attending the workshop. If participants had declared not to have changed their teaching practice, they were asked why not and what would have made change more likely.

The questionnaire was sent to a total of 239 workshop participants. One hundred and forty six were returned, covering 29 workshops and twelve different facilitators, a response rate of 61% (28% of all workshop attenders, 37% of all those who filled in an evaluation form). With response rates of this magnitude it might be reasonable to speculate that those who completed and returned a follow-up questionnaire were more likely to be participants who felt positively towards the
workshops than those who did not. This hypothesis was tested in two ways. For each question on the original workshop evaluation questionnaire (E1 – E5), mean scores for the follow-up questionnaire respondents (n = 146) were compared with all the other workshops attenders who completed the end-of workshop evaluation form (n = 245) using t-tests. No significant differences between these groups were found for any question. Chi-squared analyses for the distribution of responses for each question (E1 – E5) also revealed no significant differences between these groups. In other words those who returned the follow-up questionnaire were not identifiably different from those that did not in terms of their original reaction to the workshops. Thus, the respondents can be seen as a representative sample of the workshop attenders.

The participant’s original completed evaluation form, which they filled in at the end of the workshop, was used to compare their evaluation of the workshop at the time with their reporting of whether they have made subsequent changes in their teaching practice on the questionnaire. The questions on this questionnaire, and from the questionnaire administered at the time of the workshops, are shown in Table 1.

Stage 2: Telephone interviews

The second stage involved a qualitative follow-up to the questionnaires by telephone interview. Thirty five respondents to the questionnaire had said that they had made some changes to their practice, either to a fair or a great extent. Of those 20 had provided their names and telephone numbers and agreed to being approached further. Attempts were made to contact these twenty by phone, to conduct telephone interviews. 17 of these (almost 50% of those who claimed to have made changes to a fair or great extent) were successfully contacted and interviewed. These interviews were tape-recorded with the person’s consent, and transcripts made of these recordings. These transcripts have been labelled A to Q to identify the seventeen different respondents.

In each case, the interview was structured around the following six questions:
1. What were the changes made?
2. Is there any evidence that they have been successful?
3. In retrospect, was the workshop worth attending?
4. Is that your general experience of workshops?
5. (If answer to 3 above was ‘Yes’) Was there anything in particular about this workshop that made it worthwhile?
6. What especially did you take away from it?

The workshops

This sample of 17 participants had attended 13 different workshops run by six different facilitators. The subjects of the workshops covered six different topics:

• teaching large classes;
• assessment;
• assessing student-centred courses;
• supervising postgraduates;
• problem-based learning;
• developing teaching in higher education.

The workshops were also categorized into type (Departmental, Institutional and National), size (Number of participants) and length. However, as virtually all the workshops were of the same type (Institutional) and length (one day), no statistical comparison could be made. Although the size of workshops did vary, there was no significant difference in the responses from different sized groups.

Extent of change

The data from the questionnaires is summarized in Table 1.

There is evidence that many workshop participants changed their practice. Twenty-five per cent say they have changed to either a fair or great extent, and 89% claim to have made some changes (Q6). This evidence of change is corroborated by Q1 which reversed the question.

In addition, as a result of the workshop, respondents answered that to either a fair or great extent they:

• had experimented with some of the ideas – 40% (Q4);
• had been inspired to find out more – 39% (Q3);
• had discussed the issues with colleagues – 48% (Q2);
• were reassured and had gained confidence about their practice – 75% (Q5.)
Table 1 Responses to questions in the follow-up questionnaire and workshop evaluation questionnaire (n = 146)

<table>
<thead>
<tr>
<th>Questionnaire (Q) results</th>
<th>Not</th>
<th>Little</th>
<th>Fair</th>
<th>Great</th>
</tr>
</thead>
<tbody>
<tr>
<td>Please rate the extent to which each of the following statements applies to you</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>As a result of the workshop:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q1. My practice is now the same as before the workshop</td>
<td>14 (10%)</td>
<td>33 (24%)</td>
<td>58 (43%)</td>
<td>31 (23%)</td>
</tr>
<tr>
<td>Q2. I have talked subsequently with work colleagues</td>
<td>4 (3%)</td>
<td>70 (49%)</td>
<td>49 (35%)</td>
<td>19 (13%)</td>
</tr>
<tr>
<td>Q3. I was inspired to find out more about the issues</td>
<td>24 (17%)</td>
<td>61 (44%)</td>
<td>45 (32%)</td>
<td>9 (7%)</td>
</tr>
<tr>
<td>Q4. I have experimented with some of the ideas it raised</td>
<td>17 (12%)</td>
<td>66 (48%)</td>
<td>42 (31%)</td>
<td>12 (9%)</td>
</tr>
<tr>
<td>Q5. I was reassured and gained confidence about my practice</td>
<td>12 (9%)</td>
<td>23 (17%)</td>
<td>76 (55%)</td>
<td>27 (20%)</td>
</tr>
<tr>
<td>Q6. I have changed some of my own practice</td>
<td>14 (10%)</td>
<td>88 (64%)</td>
<td>29 (21%)</td>
<td>6 (4%)</td>
</tr>
<tr>
<td>Q7. I have changed some practice in collaboration with colleagues</td>
<td>59 (45%)</td>
<td>56 (42%)</td>
<td>16 (12%)</td>
<td>1 (1%)</td>
</tr>
<tr>
<td>Q8. I have persuaded colleagues to make changes</td>
<td>71 (54%)</td>
<td>47 (36%)</td>
<td>12 (9%)</td>
<td>1 (1%)</td>
</tr>
<tr>
<td>Q9. I have sought approval for some changes to be made</td>
<td>74 (58%)</td>
<td>32 (25%)</td>
<td>14 (11%)</td>
<td>8 (6%)</td>
</tr>
</tbody>
</table>

Please tick all answers which are appropriate

The reason I have not changed more is:
<table>
<thead>
<tr>
<th>Reason</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Q10. I was doing most of the things suggested already</td>
<td>55 (38%)</td>
</tr>
<tr>
<td>Q11. There were not sufficient useful/relevant ideas or examples in the workshop</td>
<td>25 (17%)</td>
</tr>
<tr>
<td>Q12. I have made all the changes I think I can</td>
<td>23 (16%)</td>
</tr>
<tr>
<td>Q13. I tried some things out and they did not work</td>
<td>22 (15%)</td>
</tr>
<tr>
<td>Q14. I have been too busy</td>
<td>51 (35%)</td>
</tr>
<tr>
<td>Q15. It has not yet been appropriate</td>
<td>58 (40%)</td>
</tr>
<tr>
<td>Q16. I have been unable to convince colleagues</td>
<td>17 (12%)</td>
</tr>
<tr>
<td>Q17. There are departmental/institutional blocks</td>
<td>32 (22%)</td>
</tr>
</tbody>
</table>

What it would have taken for me to change/change more is:
<table>
<thead>
<tr>
<th>Requirement</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Q18. A workshop with more specific/relevant application to my context/discipline</td>
<td>65 (45%)</td>
</tr>
<tr>
<td>Q19. The cooperation of colleagues</td>
<td>28 (19%)</td>
</tr>
<tr>
<td>Q20. Institutional support</td>
<td>30 (21%)</td>
</tr>
<tr>
<td>Q21. Institutional change</td>
<td>29 (20%)</td>
</tr>
<tr>
<td>Q22. Nothing would have made more change possible</td>
<td>13 (9%)</td>
</tr>
<tr>
<td>Q23. Other</td>
<td>35 (24%)</td>
</tr>
</tbody>
</table>

Original evaluation (E) of the workshop:

<table>
<thead>
<tr>
<th>Evaluation</th>
<th>Outstanding</th>
<th>v. good</th>
<th>good</th>
<th>o.k</th>
<th>poor</th>
</tr>
</thead>
<tbody>
<tr>
<td>E1. The workshop as a whole was</td>
<td>8 (6%)</td>
<td>87 (65%)</td>
<td>26 (20%)</td>
<td>12 (9%)</td>
<td>0 (0%)</td>
</tr>
<tr>
<td>E2. The consultant’s presentation skills</td>
<td>18 (13%)</td>
<td>89 (65%)</td>
<td>19 (14%)</td>
<td>9 (7%)</td>
<td>1 (1%)</td>
</tr>
<tr>
<td>E3. The consultant’s facilitation skills</td>
<td>23 (17%)</td>
<td>84 (62%)</td>
<td>17 (13%)</td>
<td>9 (7%)</td>
<td>2 (1%)</td>
</tr>
<tr>
<td>E4. The consultants expertise on the workshop topic</td>
<td>36 (27%)</td>
<td>76 (56%)</td>
<td>17 (13%)</td>
<td>6 (4%)</td>
<td>1 (1%)</td>
</tr>
</tbody>
</table>

E5. How likely are you to change some aspect of your practice as a result of this workshop?

<table>
<thead>
<tr>
<th>Likelihood</th>
<th>Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Very likely</td>
<td>101 (69%)</td>
</tr>
<tr>
<td>b. Possibly</td>
<td>30 (21%)</td>
</tr>
<tr>
<td>c. Unlikely</td>
<td>2 (1%)</td>
</tr>
<tr>
<td>d. Unlikely due to the nature of the workshop</td>
<td>3 (2%)</td>
</tr>
<tr>
<td>e. Unlikely due to constraints in your working context</td>
<td>6 (4%)</td>
</tr>
</tbody>
</table>
It may be indicative of the isolation in which many people work in higher education that only 13% reported to have changed practice in collaboration with colleagues to a fair or great extent (Q7), and only 10% reported to have persuaded colleagues to make changes to a fair or great extent (Q8).

Where change was limited this was perceived by participants to be because they were already doing the things suggested (Q10) to a greater extent than because the workshop provided insufficient useful or relevant ideas or examples (Q11). Only 16% claimed to have made all the changes they thought they could make (Q12). Only 15% claimed to have tried things out which did not work (Q13). The most common response to the question about why more changes have not been made was that it has not yet been appropriate, implying that respondents might make further changes in the future.

The 22% who blamed institutional or departmental blocks (Q17) is matched by the numbers wanting more cooperation from colleagues, more institutional support and more institutional change. This suggests that workshop facilitators might usefully spend more time in the workshop specifically considering these possible blocks to change and ways of overcoming them. The 38% who claimed that they had not changed more because they were doing most of the things suggested already (Q10) might be seen as criticizing the workshops. However, as already mentioned, participants also report deriving reassurance and increased confidence in their current practice. Thirty-five per cent claimed to have been too busy to make more changes (Q14). Nearly half (45%) would like more examples in the workshops specifically related to their own discipline or context (Q18).

Predicting change

Responses in the follow-up questionnaire were correlated with ratings from the workshop evaluation questionnaire. Participants' overall rating of the workshop (E1) was significantly positively correlated with the extent of (self-reported) change four months later ($r = +.52$, $p < .001$), as was participants ratings of the consultant's presentation skills, facilitation skills and subject expertise ($r = +.37$, +.43 and +.36 respectively, $p < .001$ in each case). Participants' overall rating of the workshop also correlated moderately with other indicators of change four months later: inspiration to find out more (Q3; $r = +.23$, $p < .05$) and experimentation with ideas (Q4; $r = +.26$, $p < .01$). In other words standard workshop evaluation ratings of this kind appear to be a reasonable indicator of (self-reported) change in practice four months later, with the overall workshop rating being the best predictor.

Participants' indication of their likelihood to change after the workshop (E5) was significantly positively correlated with the extent of change four months later ($r = +.31$, $p < .001$). The indication of likelihood to change also correlated with the extent of inspiration to find out more (Q3) and the extent of experimentation with the ideas (Q4) ($r = +.19$ and +.32, respectively, $p < .001$). Of those who had said they were very likely to change (n = 94), only 6% said they had not actually made any changes. Of those who had said they possibly would make changes (n = 28), only 18% had not done so. If these figures are combined, of all those expressing some likelihood to change (n = 122), only 9% had not actually done so. From this evidence an indication of likelihood to change at the end of a workshop can be accepted as a good predictor of at least some (self-reported) change four months later.

Conclusions from the questionnaires

This evidence suggest that the workshops had achieved a great deal, with only a small minority of participants reporting four months later that they had not made any changes in their practice. A range of kinds of change were reported, to varying extents. Overall evaluations of the workshop and, to a lesser extent of the workshop facilitator, were a reasonable predictor of the extent of such subsequent change in practice. Participants' indication of likelihood of change, at the end of the workshop, provided a good indication of the likelihood of subsequent change.

On the basis of this evidence the scepticism about the effectiveness of workshops expressed in the literature cited at the start of this paper seems somewhat harsh, as does the scepticism about the value of workshop evaluation data. As we know, overall student feedback ratings of teachers correlate with various measures of outcome so perhaps it should not surprise us that overall feedback ratings of workshops and their facilitators also correlate with outcomes.
Evidence from the telephone interviews

The second half of this paper explores the qualitative data from telephone interviews in order to explore:

- whether the reported changes had in fact been made, and the scale of those changes;
- whether there was any indication that any of these changes had been successful;
- what had made the workshops successful in promoting change;
- whether these success factors are something inherent to all workshops or whether there was something special about these particular workshops.

Evidence of change

All 17 interviewees provided specific examples of changes that they and colleagues had made as a result of the specific workshop. This bears out the initial responses to the questionnaires. In almost every case, more than one specific change could be cited, and in many there was quite a list, for example:

'one particular thing was students reading other students' work, that sort of stuff. So I certainly started doing that and we've started a voluntary group writing clinic for students who perceive that they have writing problems and that's the sort of thing that was certainly included [in the workshop]. Plus there was this assignment attachment sheet, that is another thing we have introduced' (F).

'Quite a lot of things to do with breaking down into smaller groups, getting them to participate. Small groups situations within the large group, assessing their own work we brought in, which we hadn't really tackled at all before. Students really helping one another within the group, it was that really which I found quite useful' (N).

As well as specific changes such as these, six interviewees (35%) claimed that, in addition to ideas, the workshop gave them confidence. The following examples are typical:

'And a greater sense of self-confidence in those kind of situations, doing lectures to 270+ students at a time and a 2-hour lecture. So it has been useful in terms of having the skills and confidence in that kind of arena' (K).

'When you're feeling a bit more confident you think of more innovative ideas' (H).

Four others talked of being either excited or enthused by the workshop to try out some of the ideas, and one of those themselves ran a workshop for their colleagues back in their own institution. This interviewee also pointed out that they still had a wealth of ideas that they had not yet tried but may try in the future:

'Oh yes! I know there were a number of other things within there that I could have tried ... I have still got all the notes and things and some of the other things are possibly there to try in the future, but I didn't see an immediate use for them, although I found them interesting' (G).

Evidence of success of change

All 17 believed that the changes they had made had been successful, but almost all acknowledged that it was hard to provide evidence. What evidence they could provide falls into a number of different categories:

'Gut' feeling:
'I feel I think that they are getting something out of it. You get a feeling in a class, even a large class if they are with you or if they are really outside although physically they are still in the room' (G).

Third-party feedback:
'Yes. I have examiners' reports to show that they were quite satisfied with the wide range of new things which I introduced. I have been in the college for about 2 years and introduced quite a wide range of systems of assessment, which at the moment other fields are also copying and trying to introduce in their own section' (C).

Negative evidence:
'The quality of the work hasn't gone down ... If we had gone on in the old way then we would have probably expected a falling off of quality' (M).

Student behaviour and feedback:
'In terms of teaching assessment that we do. The students' assessment of us. On a scale of 0-5 across the board. Seminars are getting a 4+ now which is pretty exceptional for undergraduates ... In terms of my own lecturing scores as well went up from an abysmal 2.8 to round about a 4,
which again for big undergraduate courses is pretty good really' (K).

Student performance:
'I have not had a failure in the last year, I count that as one of my successes. We have had some students who are bad learners and I am probably one of the first to admit this is a very difficult subject to teach. For the first year I have managed to clear them all over the boundary mark for a pass in the 2 subjects. That has helped, I am sure and it is due to the workshop' (O).

But one interviewee pointed out the difficulty of knowing what is valid evidence:
It is very hard to tell because we are not sure; we have a funny feeling that this year’s cohort is better than last year’s any way. We had a lot of problems last year with getting people to be objective and stand back a bit and look at their own work effectively. This year they seem to be able to do it very well. We are not sure if it is because we are giving more opportunity to do it and do it better or because they are just better anyway. So it is very difficult to assess how that [increase in self-assessment] is working. I suspect it’s a mixture of both' (B).

Evidence about the workshops
All 17 said categorically that the workshop they had attended had been worthwhile, but only six (35%) said that was their general experience. Three seemed to reach this conclusion through holding a fairly philosophical (some might say generous) view that there is always something to be gained, which would seem less than a total endorsement:
'I have been to quite a number of workshops and I can’t think of one off hand that I would say was a complete waste of time. There is always something to be learned from them' (P).

And one other interviewee simply said somewhat wistfully:
'I am one of those who always tries to get something' (H).

Another three offered more qualified responses:
'They are useful if they try to allow individuals to express themselves in the form of group discussion' (C).

'They vary. I think it depends what you put into them. I always quite like to get involved so I generally go to a workshop anticipating that I will get something positive out of it. And it’s not very often that I don’t. Even if it is only talking to other people within the university I find that quite positive' (F).

'Not always . . . If the teacher talks a lot and doesn’t ask for student participation' (J).

The remaining 6 (35%) said categorically that this was not their usual experience of workshops, and several were even quite rude about others that they had been to:
'Other things I have been to run by . . . [have been] an absolute disgrace' (B).

Because of the responses above, we were able to ask all 17 interviewees what it was about the OCSD workshops which they believed made the difference. In many cases, part of their answer was to highlight particular ideas or specific examples which they had found especially useful. These had often already featured in their answer about the changes they had made. In addition, however, all of them made comments about aspects of the workshop process and organization.

Organization and structure:
'It was very well organized, it was very well structured’ (A).

The facilitator’s skills and expertise:
'The people who were running them. The were experts in their field and they were good at communicating. Enthusiastic. They were able to facilitate a large group and they actually put into practice what they were preaching in that they gave a certain amount of lecturing, then activities’ (G).

Workshop process:
'I am normally a very quiet person . . . Sitting in the half-circle going round us one by one to speak. That got me going from the very first moment which is unusual for me [and] . . . there were various tricks that were used which helped' (O).

Group work:
'Doing it in groups. Having to work quickly. A very mixed group. I was with professors, lecturers, heads of department’ (B).

Meeting others:
'Interaction with others. Exchanging the ideas. Finding out about other people’s experiences
The impact of educational development workshops on teachers' practice

and having those experiences scrutinized with the help of (the facilitator). It puts things into perspective' (D).

Practical examples and materials:

'It was varied and it offered a lot of practical advice and suggestions that you could go off and put into practice' (G).

There was a lone voice with a reservation about group working:

'Sometimes group working can be a problem, it depends who you have in your group and how seriously you take it. I have been in 2 or 3 where you were jumping up and down, but nobody else was. Sometimes that tends to be a bit of a problem. Other than that they [groups] are generally useful and interesting' (M).

A number of interviewees also pointed out the importance of the attitudes and motivation of the participants:

'I think it is what the people going to them are prepared to put into them that is as important as anything' (F).

'I was quite keen on [the subject of the workshop] anyway. I had been looking for a workshop for quite a while' (E).

'Circumstances meant we knew we had to make changes, and I believed changes would be beneficial anyway' (Q).

Most interviewees (14, 82%) were able to identify specifically what they got out of the workshop. Their responses fall largely into one of two categories: specific ideas and materials, and emotions and intentions:

Specific ideas and materials:

'Timing. Hard to relate to a very large class and I am fairly well practised at it. I have been in this game for 10 years and it wasn't until the workshop that I quite realized the importance of timing... That is probably the best thing. The books also because I could take them away and study them in detail. There was stuff in there that wasn't even talked about in the workshop. Setting essays, tutorials, how to gauge them and how to assess them came over very well in the book. I even photocopied the questionnaire pages at the back of the books and gave them out and they worked very well' (O).

Emotions/intentions:

'I came away with a certain amount of enthusiasm to actually go away and do something' (L).

Conclusions

The combination of qualitative and quantitative data reported here would suggest these conclusions:

1. Workshops can promote at least some changes in the practice of most participants, and extensive change in some participants, and these changes can be judged to have been successful.
2. Workshops can successfully reassure the participants and provide them with extra confidence in what they are already doing and confidence to innovate.
3. Workshops ratings are reasonable predictors of likely impact, and indications by participants of how likely they are to change are good predictors of likely impact.

On the basis of this evidence it would seem justified both to use workshops as a tool of change and to use end-of-workshop evaluations as an indicator of impact.

However, although these findings are encouraging to those who use workshops, and workshop evaluations, it must be noted that the workshops studied had certain characteristics which may not be shared by all workshops. They were all led by experienced facilitators who were 'outsiders' to the teachers concerned, and in almost all cases participants had chosen to attend. It might also be argued that the topics covered were in areas where individual change is more possible. Practical change is a clear objective of OCSLD workshops and most are very practical in nature with an emphasis on realistic 'good ideas' rather than on conceptual analysis. The workshops were almost all of one day's duration. As described above, some participants commented on how different they were from other workshops they had attended.

To check that these findings apply to other types of workshops further questions need to be asked:

• About length – are two or three day workshops more successful?
• About *topics* – are workshops more appropriate for some topics than for others?
• About *compulsion to attend* – does compulsion reduce the workshop’s potential effectiveness?
• About *composition* – is it more effective to work with single disciplines, single departments or course teams, even if this might require some compulsion to attend?

The only evidence of change, and that any changes made have been successful, was subjective, self-reported, and provided by a fairly small sample. Other evidence, such as that suggested by Eison and Stevens (1995) above, is needed to support claims that changes made have been successful, and especially to provide evidence that there has been an improvement in students’ learning rather than only in teaching methods.

The OCSLD workshops were praised for a number of reasons:

• their organization and strong structure;
• the facilitator’s skills and expertise;
• interactive processes, especially group work;
• giving practical examples and materials;
• the positive attitudes of the participants.

What exactly OCSLD does in its workshops that results in the extent of impact reported here has not yet been codified and made available to others.

**References**


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**About the author**

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What development do academic staff want?

_NASD Journal, No 38, 26-31_
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What development do academic staff want?

Chris Rust: Principal Lecturer and Development Officer, Oxford Centre for Staff and Learning Development, Oxford Brookes University

This paper reports the findings of a study of the topics higher education academic staff say they would like workshops or consultancy support to be provided. It then considers the possible implications of these findings for staff and educational developers not only with regard to choice of topics but also for both the promotion and marketing of such activities, and how they might best be structured.

Introduction

As has been reported elsewhere (Rust, in press) workshops are a very common form of development activity in higher education. In a recent survey by Wright & O'Neil (1995), teachers in higher education in the UK rated workshops as the third most likely practice to improve their teaching (after recognition of teaching in promotion decisions, and Deans/Heads fostering the importance of teaching responsibilities). And although most highly ranked in the UK, in the same survey, workshops were ranked fifth in Canada, thirteenth in the USA, fourteenth in Australasia, making them seventh overall out of a list of thirty six practices.

However, until my own recent research study (Rust, Ibid), a review of the literature could find no serious attempt to research their effectiveness. In what claimed to be the first review of this literature, Levinson-Rose and Menges (1981) asserted that “workshops and seminars are probably the most frequent but least evaluated instructional improvement activities” (p406). Weimer and Lenze (1991) in their subsequent review ten years later found that little had changed in the intervening decade – “actual research on workshop effectiveness is so meager that it makes assessment across any dimension a moot point” (p301) and conclude by expressing “considerable concern ..... about the extensive use of a method to improve instruction with so little corroboration of its effectiveness” (p305).

A review of the literature also failed to find any account of staff and educational developers undertaking any serious needs/wants analysis or attempting to identify in which areas academic staff actually want development activities to be organised. Numerous accounts can be found of different ways that staff and educational development units have been organised, and identifying trends and influences in how they undertake their work (Main 1985, Smith 1992, Wright and O'Neil 1995,
Brew 1995). But when considering on which topics to focus their activities these it always seems to result from some combination of essentially centrally identified concerns and priorities – those areas considered important by the university's senior management, a particular department's senior management or the development unit itself – possibly/probably influenced by external pressures such as funding or the quality assessment process for example. There may well be some consideration of what "grassroots" academic staff need or want, but it would seem to be at the level of what the developers and/or management think they need or want; no accounts could be found of any serious attempt to research what they actually do want in terms of development topics and activities.

Background to this study

The Oxford Centre for Staff and Learning Development (OCSLD) is the largest provider of staff and educational development in British higher education, through consultancy, workshops and publications. In one year, over 200 days of workshops are run by OCSLD's network of facilitators in institutions of higher education around Britain, attended by a total of over 1600 participants. At the end of each workshop, participants complete a standard evaluation questionnaire, and since autumn 1994, one of the questions included on that questionnaire has been "On what topics would you like follow-up workshops or consultancy support?" The sole original purpose of this question was to feed back the responses to the client who had commissioned the workshop with the hope that this would stimulate further business. However, at the end of 1996, it was decided that it would be an excellent source of data to identify exactly in which topics academic staff are interested in development. The amassed responses (from October 1994 to December 1996) were therefore analysed and this paper summarises the information gathered and attempts to interpret their implications for staff and educational developers, in particular with regard to choice of topics and their marketing.

The data

Despite being asked, not every participant at a workshop actually completes the evaluation questionnaire, and of those who did the majority chose not to answer the follow-up question. In fact, only 19% responded to this question with 51% of those respondents providing more than one suggestion. Nevertheless, this provided 1,387 separate topic suggestions.
It was found that the vast majority of the 1,387 suggestions (1,302, 94%) could be grouped under 24 topic headings (see below). A few of the topics, such as assessment, scored very highly (319 separate requests) compared with the others. This was at least partially because there appears to be a ‘momentum effect’ with many participants asking for more of the same topic as the workshop at which they are asked the question. A large number of the workshops delivered over the two years have been on aspects of assessment. The data was therefore further analysed to show the percentage of the requests for each topic which came from participants attending workshops on subjects other than that being requested. The results of this were as follows

<table>
<thead>
<tr>
<th>Topic</th>
<th>No of requests</th>
<th>% from workshops not on that topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assertiveness:</td>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td>Assessment:</td>
<td>319</td>
<td>42</td>
</tr>
<tr>
<td>Computer aided learning:</td>
<td>26</td>
<td>0</td>
</tr>
<tr>
<td>Course design:</td>
<td>52</td>
<td>48</td>
</tr>
<tr>
<td>Groupwork:</td>
<td>77</td>
<td>64</td>
</tr>
<tr>
<td>Learning theory</td>
<td>52</td>
<td>69</td>
</tr>
<tr>
<td>Lecturing:</td>
<td>57</td>
<td>44</td>
</tr>
<tr>
<td>Management:</td>
<td>13</td>
<td>46</td>
</tr>
<tr>
<td>Modularity:</td>
<td>10</td>
<td>70</td>
</tr>
<tr>
<td>Open/distance learning</td>
<td>26</td>
<td>12</td>
</tr>
<tr>
<td>Personal follow up/feedback:</td>
<td>300</td>
<td>100</td>
</tr>
<tr>
<td>Practical/transferable skills:</td>
<td>82</td>
<td>38</td>
</tr>
<tr>
<td>Problem students:</td>
<td>22</td>
<td>100</td>
</tr>
<tr>
<td>Profiling/portfolios:</td>
<td>14</td>
<td>43</td>
</tr>
<tr>
<td>Recruitment:</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Research/post-graduates:</td>
<td>36</td>
<td>56</td>
</tr>
<tr>
<td>Seminars/tutorials:</td>
<td>19</td>
<td>68</td>
</tr>
<tr>
<td>Student feedback:</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>Discipline/subject specific:</td>
<td>46</td>
<td>100</td>
</tr>
<tr>
<td>Teaching:</td>
<td>61</td>
<td>51</td>
</tr>
<tr>
<td>Team/departmental:</td>
<td>20</td>
<td>100</td>
</tr>
<tr>
<td>Time management:</td>
<td>20</td>
<td>95</td>
</tr>
<tr>
<td>Tutoring:</td>
<td>26</td>
<td>50</td>
</tr>
<tr>
<td>Undergraduate project supervision:</td>
<td>8</td>
<td>0</td>
</tr>
</tbody>
</table>

**Analysis of the data**

In some cases, the topics suggested appear to be totally due to a “momentum effect”. In the extreme examples of this, the only people
suggesting more workshops on assertiveness, computer aided learning, student feedback, and project supervision were already attending workshops on those topics. One possible implication of this is that these are limited fields of interest and therefore any marketing of development activities in these areas will need to be carefully targeted. A slightly different interpretation is that these are not areas which readily come to participants’ minds when asked such a question, but nevertheless might prove popular if offered. This could be checked by instead of asking an open question, participants were offered a list of possible activities to choose from.

There are other topics such as modularity where a high percentage (70%) of the requests appear to be ‘original’ coming from attenders at workshops in different topics, but the total number is too low (10) to be of much interest. Although with modularity this is perhaps surprising given how many institutions have moved to modular systems in the last few years so perhaps this is potentially of interest for that reason – why aren’t more people requesting help in this area? Very much in the same category is computer aided learning (26, 100%), which also might well have been expected to have been requested by more respondents given the increasing pressures and inducements for higher education to make more use of computer and information technology. This would seem to indicate that just because we perceive certain issues to be “hot” and current does not mean that they will prove popular without a good deal of marketing.

More interesting in terms of identifying the perceived needs of the respondents would seem to be the results where there is both a high total number and a high percentage of these are not the result of the ‘momentum effect’. The three topics which best fit this description, and can also be seen as distinct subjects, are assessment (319, 42%), groupwork (49, 64%) and learning theory (36, 69%); perhaps no real surprises there. But at least an indication that with very little marketing these topics will still prove popular.

However, two other topics also fit these criteria which are perhaps a little less expected and therefore most worthy of note. Firstly, the request for discipline/subject focussed workshops (46, 100%) would seem to at least partially support the arguments of Jenkins (1996) et al that some staff and educational development may be more effective if it has a clear and specific disciplinary focus. Secondly, the overwhelming response requesting the opportunity to meet again on the same topic to report on personal successes and problems for feedback and follow-up (300, 100%). This category is distinctly different from those requesting more on the same topic; these participants specifically identified that they wanted an opportunity to follow-up their personal results of implementing ideas
from the workshop they had just attended. However, the number in this category could possibly be even greater as there may have been those who had this in mind but did not express it in those terms and may instead be amongst those who simply asked for more on the same topic.

Implications of the data

The data would seem to suggest the following three conclusions:

- Although it could be argued that the phrasing of the question using the words “follow-up” may have partially influenced the outcomes, these findings would still suggest that it could be worthwhile to try and design all staff development workshops in two parts separated by a reasonable space of time. This data now offers support for anyone arguing to do so.

- That a material number of staff would like their staff development to have a clear and specific disciplinary focus and relevance

- That topics such as assessment, group work and learning theory are likely to prove widely popular, and should be regularly included in any ‘menu’ of provision.

There is of course the possibility that the ‘momentum effect’ of wanting more on a topic just presented, and the enthusiasm at the time of wanting to meet again to follow up what individuals have done, might both prove short-lived and numbers attending the second session might prove disappointing. On the other hand, the reflective practitioner cycle (not to mention the action research model) would surely support this concept of a time for experimentation followed by an opportunity for reflection and further planning. It would also seem to fit neatly with much of the literature on ways of developing a learning culture, and a learning organisation.

Future action/research

The questionnaires were completed immediately the workshops finished. How long either the “momentum effect” or the desire for a personal follow-up session will last needs to be tested by building in the offer of further sessions and then monitoring how many actually take them up.

In addition, perhaps workshop facilitators should make explicit the apparently implicit acknowledgement in this data of the Kolb’s experiential learning cycle, both in the process of the workshop itself and in the suggestion of follow-up activities by the participants, whether or
not there is to be a formally organised follow-up meeting.

It would also be interesting to pursue the question of what influences the perceived needs of academic staff. The data above might suggest that it comes more from personal experience than topics which are seen to be important and current by either the educational media or their institutional leadership. More research would need to be undertaken to establish whether this is true. It would certainly be interesting to give future respondents a checklist of possible topics and activities to choose from instead of just the open question to see if that would broaden the range (and possibly the number) of responses.

It must also be acknowledged that this survey is based solely on responses from British academics during a specific time period. Whether these topics and interests are peculiar to the British context, and also whether over time they will change, also requires further research.

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Introducing SI in business courses in a modular programme

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Helping Students to Learn from Each Other

Supplemental Instruction

Edited by
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SEDA Paper 86

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Introducing SI in business courses in a modular programme

Margaret Price, School of Business and
Chris Rust, Educational Methods Unit, Oxford Brookes University

The context

In 92/93 Oxford Brookes University piloted an SI scheme in the School of Business. The pilot was funded through the University’s Staff Release Scheme which aims to promote innovation in teaching and learning. The scheme provided us with the hours we needed to run and monitor the scheme.

Why SI?

We knew that SI schemes are intended to be run on programmes that are considered ‘difficult’ but at Oxford Brookes we decided to run it for our business programme in the modular course. Generally business is not seen as traditionally difficult and does not have a high failure or high drop out rate. We chose to run it because of the large student numbers. The flexibility of our modular programme allows first year student to take several modules from outside their chosen field. Many of them choose to take the business modules, the result being that these modules run with between 400-500 students each term. Despite its original purpose SI seemed to be a mechanism whereby students could be helped to come to terms with the sheer scale of the operation and thereby support their learning.

The course

The three stage I modules which offered SI were the compulsories for the Business Administration and Management course. This course must be combined with another course from the modular programme and leads to a joint honours degree. For full time students Stage I is equivalent to the first year and they must pass 9 modules including the compulsories to progress to Stage II. This is an important factor to consider as there is no incentive to do better than pass apart from the fact that a better grounding in the subject should benefit them later in the course. The wish to do well per se comes from the motivation of the student rather than the instrumental gain of a higher degree classification.
Introducing SI in business courses in a modular programme

The BA&M course has approximately 80 students in Stage I (60% UK, 40% Overseas), the remaining students taking the modules (approx. 400) came from other courses within the module framework. For some of these students the Business modules may have been adopted as compulsories for their courses within the School of Business, e.g. Marketing Management, Retail Management, use one or two of these modules. Other courses may recommend the modules to their students while the remaining students have chosen the module out of personal interest. Therefore the students who were offered SI had a wide variety of backgrounds, knowledge and motivation. They could not by any stretch of the imagination be considered an amorphous group.

One of the business compulsories runs each term, Introduction to Business in Autumn term, Management Concepts in Spring term and Changing Environment of Business in Summer term. They each adopt a similar format for delivery but use different assessment methods. Each module has 9 teaching weeks and each week there is a one hour lecture followed by a two hour seminar with students in groups of 18-20. The lecture is delivered twice in order to accommodate the large numbers of students and any student with timetable clashes. An effort is made to group the students on the same course in seminars especially the BA&M students to whom these modules ‘belong’. The lecture each week is delivered by a subject specialist and the seminar activities are designed to check student’s understanding of lecture material and develop their learning. Consequently seminar activities vary week by week and include the use of case studies, role plays, presentations etc. At the start of the module each student is provided with a workbook which contains an outline of the course, a week by week breakdown of the reading, lecture review questions and seminar material and the assessed coursework tasks.

The assessment for each module varied from 50% coursework: 50% exam to 100% coursework. The coursework tasks included a major project to examine the operations and performance of real business, investigation of the work of a manager including conducting an interview, making a group presentation on the topic of training and mapping the environment of a particular industry. The examination used multiple choice questions to cover the whole spectrum of material covered.

The preparation

The SI project started in summer 1992 by recruiting 11 potential SI leaders from the BA&M course. Again we deviated from the usual SI route. We did not want to pay our SI leaders! We felt that there was so much potential for learning and self development through taking on an SI leader role that it would be far better to offer students the opportunity to gain academic credit. Fortunately the mechanism to put this into operation was already in existence through the Independent Study module within the course. Provided the project and the assessment methods and criteria were approved by the external examiner in advance the students could be registered for this Stage II module (contributing to their final degree classification). We were able to use this as an incentive to recruit the leaders.

Following their training as SI leaders the details of the assessment were negotiated between the Independent Study module leader and the students. The main vehicle for assessment was a Personal Development Journal with the emphasis on the identification of learning and self development (see appendix 1).
Introducing SI in business courses in a modular programme

Our SI leaders were provided with the workbooks for each module. Most, but not all our leaders had done the course. Some had been Stage II entries to the course while one was not even on the Business course. Although they could if they wished go to the lecture each week very few of them did, this was sometimes due to timetable clashes but mainly because the students did not find the exercise useful for their role. Many of the leaders found it easier if they did not go and that way they were less likely to give the SI participants ‘the answer’.

The year

In Autumn term, with 8 trained SI leaders (2 working together), we offered 7 one hour sessions at different times in the week, totally unsure how many 1st year students would attend any one. In fact we were so concerned that the sessions could be overwhelmed that we only offered them to half the students taking the module Introduction to Business i.e. those attending one of the lecture slots. In the event the attendance was a little disappointing. Out of 265 students who could have attended, 50 (19%) chose to attend at least one session in the term. We are still not sure why more did not attend; one possible reason could of course be that the lectures and seminars were doing a good enough job for the majority of students. Out of the 50 who did attend however, 54% attended more than once during the term and 40% attended more than twice which would seem to suggest that for those students SI was meeting a need.

In the Spring term we offered SI to all the students on Management Concepts in the hope that this would increase attendance at individual session and thereby utilise the SI leaders we had to the maximum. The attendance was 16.5% at least once with 49% of those attending more than once and 40% more than twice.

The Summer module attracts fewer students than those in the Autumn and Spring terms so we used the expertise of our SI leaders to offer SI on 2 business related modules; Introduction to Accounting and Maths for Economists. We chose these as they were more in line with the types of subjects which traditionally use SI. Unfortunately there is no data available for these but attendance for Changing Environment of Business was 21% at least once with 63% of them attending more than once and 35% attending more than twice.

The results

A database has now been created of the 563 students who attended one or more of the three consecutively run Stage I business modules in 92/93 on which SI was offered.

Statistical analysis reveals:
- no correlation between entry qualifications and performance on the modules
- high correlation between performance on these modules and other Stage I modules i.e. these are not atypical modules in terms of difficulty
- no correlation between SI attendance and entry qualifications
- no correlation between SI attendance and average Stage I mark i.e. SI attenders would appear to be typical students in that they are not weaker or more able
Introducing SI in business courses in a modular programme

- no correlation between SI attendance and age but a significant difference in mean age:
  - attenders 23.5, non-attenders 22.1
  \(t=2.95; \text{df}=563; \ p=0.005\)

- significant difference in gender between SI attenders and non-attenders:
  - attenders 73.5% females, total cohort 57.4% female
  \(X^2\text{ with Yates' correction}=7.25; \text{df}=1; \ p=0.01\)

- no correlation between SI attendance and race

- no correlation between SI attendance and the individual’s first language

- no correlation between amount of SI attendance and results, but significant difference between attendance and result:

  **Module 7001**  
  Introduction to Business
  - SI attenders* 60.8, non-attenders 56
    \(t=2.62; \text{df}=429; \ p<0.01\)  *attended at least once
  - SI attenders* 61.4, non-attenders 56.2
    \(t=2.18; \text{df}=429; \ p<0.05\)  *attended at least twice

  **Module 7002**  
  Managing Concepts
  - SI attenders #58.5, non-attenders 54.7
    \(t=2.13; \text{df}=398; \ p<0.05\)  #attended at least once on both 7001 and 7002
  - SI attenders #60.7, non-attenders 54.6
    \(t=3.01; \text{df}=398; \ p<0.005\)  #attended twice on either 7001 or 7002

  **Module 7003**  
  Changing Environment of Business
  - SI attenders§ 56.6, non-attenders 45.2
    \(t=4.04; \text{df}=189; \ p<0.0001\)  §attended at least one SI session on one of the modules
  - SI attenders§ 56.6, non-attenders 46.4
    \(t(\text{separate variances})=6.2; \text{df}=126.2; \ p<0.0001\)  §attended at least two SI sessions in one of the modules

To summarise this data:
- so far we seem to have shown that SI will improve your results, whoever you are, but it is attendance at some SI rather than the amount of SI which makes the difference.
- SI appeals more to female students, and students who are, on average, slightly older.
- Overall we judge the pilot scheme to be a success.

**Modularity**

There were several points from which we will learn and there is a recognition that the nature of the modular course presents us with a number of difficulties and advantages that other institutions running SI do not currently face.
Introducing SI in business courses in a modular programme

Running SI on a modular course where students have a wide choice of modules, especially in their first year, presented us with the problems of a changing client population. We could not afford to train leaders just for individual modules (or award them a stage II credit on this basis) so we chose the three compulsory modules. Although a significant number of students were following the Business pathway, there could not be total continuity of students from one module to the other. Not only could the students taking each module change, so too could the weekly timetables of the potential participants and the SI leaders. In effect this meant that we had to set up an SI scheme three times a year with the need to publicise it, find suitable times during the week when rooms were available, students free to attend and SI leaders available. The benefit of this was that we got more practice at estimating the demand for SI.

Another aspect of the modular course which differentiates it from the traditional course using SI is the comparatively short teaching blocks. The teaching for each single module takes place over a 9 week period so the attendance at one SI session in that time may be more significant than in a course running over a different timescale. Alternatively the students may feel more pressure and be more inclined to attend SI.

As all students have individual timetables and cannot be contacted en masse, except during the weekly lecture, this makes communication difficult, if there have to be adjustments to time or place of the SI session. We did make use of a noticeboard, but as a means of communicating, this is far from ideal.

The publicity given to the scheme is crucial. In the first term we relied on notices on Business course boards as well as promotion of the scheme by staff and SI leaders at the start of the first few lectures. In the second term we were able, due to SI being available to all students on the module, to include information about SI in the module workbook. This proved to be effective, since the information was readily available to all students with their course materials and could act as a constant reminder of SI.

The SI leaders

All the SI leaders passed their Independent Study modules with good grades but apart from this the leaders felt that it had been a rewarding, if time consuming, experience. It helped them to develop a whole range of interpersonal, organisational and communication skills, not to mention differentiating them from other graduates on the job market. Of the original 11 recruits, 3 of them did not complete the training. One of these was an overseas student, who during his training, was having difficulty with his enrolment. The other two, however, dropped out after one day’s training. The lesson to be learnt here is that as well as ensuring that the students understand something of the nature of the role they are to play before the training begins you need to try to enlist more students for training than you actually need. Once SI is established, this may become less of a problem, as the potential leaders are likely to have experienced SI first hand.
Introducing SI in business courses in a modular programme

The future

There are still many questions to be answered about SI. We still cannot say whether SI contributes to the ability of students to cope with being one among many. Generally students choose the support they need, be it the seminar tutor, a personal tutor, a group of friends or being part of SI. It is clear from the data gathered that many students get something from SI sessions. The next stage is to determine what motivates them to attend. Is it for help with coursework, general understanding, because their personal learning style is suited by it or because it is somewhere to go in between lectures? Are students able to transfer the skills they learn in SI to non-SI modules? This seems particularly relevant to a modular course where the student has so many choices and individual timetables. Why does SI appeal to some students and not others?

This year, as part of a nationally funded research project, we are continuing to analyse the data even further. In addition, we are entering new data from three Stage II business modules, from Autumn 93, to which many of these same students progressed, to look at their results and consider the possible long term effect and transferability of SI. We are also starting to analyse data from questionnaires about SI completed by this year’s participants. Our further intentions include qualitative, face to face interviews with this year’s participants to follow up the questionnaire in depth.

Following the pilot there is a slow growth of interest from other courses in the University. The School of Business is continuing to offer SI on the undergraduate business programmes and the Retail Management Course is piloting its own scheme this year. Elsewhere the publishing course in the School of Visual Arts, Music and Publishing has introduced SI this year.

Conclusion

It seems that SI is a flexible means of successfully supporting student learning. As it is student driven it is the students who determine the objectives and learning outcomes. The system is able to offer different types and levels of support depending on the individual’s needs. This of course fits neatly with the flexibility and choice offered by a modular course. However, the number of variables at play means that measuring the detailed effects of the system is rather complex.

Laying firm foundations: the long-term benefits of Supplemental Instruction for students on large introductory courses

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Laying Firm Foundations: the Long-term Benefits of Supplemental Instruction for Students on Large Introductory Courses

Margaret Price and Chris Rust, Oxford Brookes University, UK

SUMMARY
This research project investigates the use of supplemental instruction (SI) to support student learning on business modules at Oxford Brookes University. SI is a formalized system of peer supported learning devised in the US that is intended to be used on traditionally difficult courses. Although business at Oxford Brookes is not considered a traditionally difficult subject area, the intention was to explore whether the SI process could also be used to provide additional support for students on very large introductory modules, especially in laying a firm foundation for later study in stage two of the course. Quantitative and qualitative data have been collected and analysed to investigate the benefits of the scheme for students in both the short and long term. Preliminary findings seem to suggest that attendance at some SI sessions has both an immediate effect in improving results on that module, and also sustained and transferable benefits for advanced modules. However the long-term effect seems to be limited by the similarity of context of the subject matter, the teaching approach, and/or the nature of the task and the skills required. The research also includes consideration of how and why the SI process apparently has this effect.

BACKGROUND
In 1992/3 Oxford Brookes University piloted an SI scheme in the School of Business. This was funded through the University’s Staff Release Scheme which aims to promote innovation in teaching and learning. The funding provided us with the hours we needed to run and monitor the scheme. In 1992/3 we received additional funds from the HEFCE as part of a research bid from a consortium of six institutions, which we have used to continue the pilot and research its effectiveness.

What is SI?
Supplemental instruction (SI) is essentially a formalized system of peer tutoring; it was developed in the early 1970s at the University of Missouri Kansas City (UMKC) to address a number of problems, most importantly: a high failure or drop-out rate on certain courses, and the fact that traditional student support services are seen as remedial, and are generally turned to too late, if at all. SI is different in that it is aimed at what are described as high risk or traditionally difficult courses, and offers optional SI sessions from the very beginning to all students on that course interested in improving their performance. Attendance at these sessions is voluntary and confidential. They are taken by trained SI leaders who are students who have already successfully taken and passed the particular course.

Theory of SI
What makes SI sessions significantly different from traditional peer tutoring is that they do not (in fact, must not) involve didactic teaching; SI leaders are trained as facilitators, to organize and enable the students attending their session to find the answer for themselves. Each week the leader starts the session by collecting together the various issues and
problems brought by those attending, and turning them into an agenda for the session. It is an axiom of SI that the answer to the students' problems should be in their collective notes and/or heads. The role of the SI leader is to organize the group so that those who have the answers help those who do not, and their training provides them with a number of techniques they can use to achieve this. In cases where it proves impossible to find the answer through the group, the SI leader should either help them to identify strategies to find the answer elsewhere or redirect them to their lecturer.

However, it must be stressed that SI is not just about finding right answers; it is essentially process skills orientated. For many of the students, their problems are to do with study skills and SI is intended to help them to address these but in relation and with relevance to the subject being studied, rather than in isolation as on study skills courses.

It is also worth noting that there is also a developmental benefit to the SI leaders who gain personal management and interpersonal skills, group facilitation skills, and revise and deepen their own subject understanding.

**US claims for SI**

After a rigorous review process in 1981, the SI Programme became one of the few post-secondary programmes to be designated by the US Department of Education as an 'exemplary educational program'. The National Diffusion Network, the national dissemination agency for the US Department of Education has provided federal funds for dissemination of SI, and it can now be found in over 30 per cent of American institutions of higher education.

The three claims of SI's effectiveness, validated by the US Department of Education are:

- Students participating in SI within the targeted high risk courses earn higher mean final course grades than students who do not participate in SI. This is still true when differences are analysed, despite ethnicity and prior educational achievement.
- Despite ethnicity and prior academic achievement, students participating in SI within targeted high risk courses succeed at a higher rate (withdraw at a lower rate and receive a lower percentage of D or E final course grades) than those who do not participate in SI.
- Students participating in SI persist at the institution (re-enrolling and graduating) at higher rates than students who do not participate in SI.

**Why SI for Oxford Brookes?**

We knew that SI schemes are intended for programmes that are considered 'difficult' but at Oxford Brookes we decided to pilot it for our Stage 1 business programme in the modular course. This was because of the dramatically increasing student numbers on these modules. The flexibility of our modular programme allows first-year students to take several modules from outside their chosen field. Many of them choose to take the business modules, the result being that these modules run with between 400–500 students each term. It should also be noted that even where business is their chosen field, for most of them it is one of two fields of study which together combine to form a joint honours degree.

Our thinking was that SI seemed to have the potential as a mechanism whereby students could be helped to come to terms with the sheer scale of the operation and thereby support their learning. We were also aware of an American study (Raimondo et al, 1990) into the effects of class size on economics students which concluded that while introductory course grades may not apparently worsen as student numbers increase, there may be a detrimental effect later in intermediate courses because the effect of larger numbers on those introductory courses is to reduce the amount of development in higher level cognitive skills, on which those later intermediate courses depend. Much of this the study puts down to the fact that larger lecture classes adopt different assessment methods, such as multiple choice examinations (the case in one of the three business modules concerned, and in all three now), which are more likely to assess lower-level skills, and less opportunity for class discussion. It goes on to argue that 'the negative effect of the large lecture format on the development of higher-level cognitive skills can, at least be mitigated, if not eliminated, by the appropriate use of mandatory discussion sessions'. Generally business at Oxford Brookes is not seen as traditionally difficult and does not have a high failure or high drop-out rate, but it seemed likely that the effects identified by Raimondo et al could well affect the performance of these students later, in Stage 2.

SI seemed to offer an obvious way of delivering the extra mitigating discussion sessions. SI could give
lents the opportunity to rehearse and confirm their understanding, by discussing it with others, and also develop and redefine that understanding through hearing to the different perspectives of others. However SI sessions also appeared to offer a number of distinct, additional advantages. Firstly, the fact that they are student led and confidential provides a relatively safe environment for the student to try and develop an understanding through exploratory talk. Secondly, the emphasis on process helps to develop students' study skills and approaches, thus supporting further learning. The exposure to the SI lead experience from Stage 2 may also hopefully alert students to some of the higher order skills needed in the course.

In that in British higher education the only growth resource is students, plus the claims for SI in the and the importance of discussion recognized by Raimondo study, to pilot SI, with all its potential benefits listed above, on the three large introductory Stage 1 business modules seemed a worthwhile experiment.

SEARCH INTENTIONS

There were at least four:

- Although the improvement of results apparently achieved by SI is well documented for the US there is very limited data for the UK in non-traditional SI subject areas such as Business Studies. We wanted to see whether SI did improve the students' module results.
- We wanted to see whether students who attended had any particular characteristics and find out why they attended.
- If SI is beneficial, we wanted to know in what ways.
- We wanted to see whether any improvements gained through SI were sustained and transferred into later courses.

RESEARCH METHODS

We have gained both quantitative and qualitative data, as follows:

- A database has been created of the 563 students who attended one or more of the three consecutively run Stage 1 business modules in 1992/3 on which SI was offered, which has been subjected to statistical analysis. The database includes performance data from four Stage 2 modules in the 1993/4 year for those students who had had the opportunity of attending SI the previous year.
- A questionnaire was issued to students on the introduction to business module in the 1993/4 cohort, which has been analysed (350 were distributed after a lecture in week 9 and 180 were returned — a 51 per cent response. Over a third of the respondents — 63 (35 per cent) — had attended SI at least once.)
- Face-to-face interviews were conducted with students on the introduction to business module in the 1993/4 cohort who attended SI more than twice (of the 31 invited, 10 responded.)

THE RESULTS

Confirming the US claims

Statistical analysis of the database revealed that there was a significant difference between the mean results

<table>
<thead>
<tr>
<th>Module</th>
<th>SI attenders</th>
<th>non-attenders</th>
<th>Stats</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction to Business</td>
<td>61.4</td>
<td>56.2</td>
<td><em>(t=2.18; df=429; p&lt;0.05)</em></td>
<td>† attended at least twice</td>
</tr>
<tr>
<td>7002</td>
<td>58.5</td>
<td>54.7</td>
<td><em>(t=2.13; df=398; p&lt;0.05)</em></td>
<td># attended at least once</td>
</tr>
<tr>
<td>Managing Concepts</td>
<td>60.7</td>
<td>54.6</td>
<td><em>(t=3.01; df=398; p&lt;0.005)</em></td>
<td>¥ attended at least twice on either 7001 or 7002</td>
</tr>
<tr>
<td>7003</td>
<td>56.6</td>
<td>45.2</td>
<td><em>(t=4.04; df=189; p&lt;0.0001)</em></td>
<td>§ attended at least once on any one of the modules</td>
</tr>
<tr>
<td>Managing Environment</td>
<td>59.6</td>
<td>46.4</td>
<td><em>(t=6.26; df=126.2; p&lt;0.0001)</em></td>
<td>§ attended at least two SI sessions in one of the modules</td>
</tr>
</tbody>
</table>
of attenders and non-attenders on all three modules, and this was true whether attendance at SI was treated as simply one attendance, or at least two attendances.

Further analysis showed that there was no correlation between entry qualifications and performance on the modules and a high correlation between performance on these modules and other Stage 1 modules — in other words these are not atypical modules in terms of difficulty.

Even more importantly, there was no correlation between SI attendance and entry qualifications and no correlation between SI attendance and average Stage 1 mark. SI attenders would therefore appear to be a typical cross-section of students, not significantly weaker or more able, as judged by both entry qualifications and results on other modules.

**Characteristics of SI attenders**

In considering the characteristics of SI attenders, statistical analysis revealed no correlation between SI attendance and ethnic background or between SI attendance and first language. Neither was there a correlation between SI attendance and age. There was, however, a significant difference in mean age — attenders 23.5, non-attenders 22.1 (t=2.95; df=563; p<0.005). In other words, SI attenders tend on average to be a little older.

By far the most significant difference we found with SI attenders however was their gender — attenders 73.5 per cent females, total cohort 57.4 per cent female ($X^2$ with Yates’ correction = 7.25; df=1; p<0.01).

In support of these findings regarding the 1992/3 cohort, there were very similar findings from the questionnaires completed by the 1993/4 cohort. There was no significant difference in age, race or the student’s first language between SI attenders and non-attenders, but a significant difference in gender between SI attenders and non-attenders — attenders 73.8 per cent female, all responders 65.5 per cent female.

### Table 1

<table>
<thead>
<tr>
<th>Reasons for attending SI more than twice (36 Respondents)</th>
<th>NOT TRUE No.</th>
<th>No.</th>
<th>No.</th>
<th>VERY TRUE No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meet other students</td>
<td>5</td>
<td>12</td>
<td>9</td>
<td>3</td>
</tr>
<tr>
<td>Improve study skills</td>
<td>0</td>
<td>7</td>
<td>14</td>
<td>(67%) 10</td>
</tr>
<tr>
<td>Improve knowledge/understanding</td>
<td>0</td>
<td>4</td>
<td>18</td>
<td>(78%) 10</td>
</tr>
<tr>
<td>Helped with language of subject</td>
<td>2</td>
<td>14</td>
<td>11</td>
<td>4</td>
</tr>
<tr>
<td>Increased confidence</td>
<td>3</td>
<td>10</td>
<td>13</td>
<td>(53%) 6</td>
</tr>
<tr>
<td>Helped me understand coursework</td>
<td>0</td>
<td>3</td>
<td>16</td>
<td>(81%) 13</td>
</tr>
<tr>
<td>Wanted to improve final grade</td>
<td>2</td>
<td>3</td>
<td>10</td>
<td>(72%) 16</td>
</tr>
<tr>
<td>Liked the SI leader</td>
<td>2</td>
<td>8</td>
<td>16</td>
<td>5</td>
</tr>
<tr>
<td>Liked group</td>
<td>1</td>
<td>16</td>
<td>9</td>
<td>3</td>
</tr>
</tbody>
</table>

(% are of all respondents)

Other reasons: only one response - "helped broaden and examine business in depth"
One can speculate on the possible reasons for this—perhaps female students are more conscientious and more eager to succeed; alternatively, they may lack confidence in their abilities and seek greater reassurance than their male counterparts. However, it might equally well be suggested that women are more realistic about their shortcomings while men are too arrogant to admit they have any. A further possible interpretation is that women are more rule-bound and despite its voluntary nature see SI as something they have to attend. It might also, of course, be some combination of all of these. Unfortunately, we have no research evidence to confirm any of these hypotheses and this is clearly an area worthy of further investigation.

Perceived benefits of SI

Of the respondents to the questionnaire who had attended SI, 36 (57 per cent) had attended more than twice. Of those who only went once or twice (27) 9 said that was because their problems had been solved and 3 others stopped because of time pressures but said they had found the process helpful. However, 10 said they stopped attending because they found the process unhelpful and/or were critical of the SI leader.

The perceived reasons for attending, of those attending more than twice, are shown in Table 1.

A fuller picture of how students felt they had benefited from SI was provided by the ten students interviewed. All claimed it helped with the coursework, in a variety of ways—how to approach it, what was required, how to present it—and information gathering skills were frequently mentioned.

Typical comments included: 'For that particular assignment I knew how to go about getting information' (RN); 'Yes, I wanted help with my coursework and I thought if I went along we could all talk about and yes it definitely helped me understand it' (LK).

All except one claimed it improved their confidence and he claimed he was confident already), again in variety of ways:

- in approaching the coursework
- in presenting the coursework
- in taking more part in seminars, answering questions, etc
- in oral skills mixing with and working with people through reassurance that others are in the same position
- general self confidence and self esteem.

For some, the opportunity to meet other students (and in several cases to make friends) was seen to be a benefit: '... there were a lot of mature students that went and people you wouldn't normally mix with and you could see what they said and hear their ideas, and just meeting people on the course' (LK).

Some claimed it helped with note-taking; some claimed it helped generally with a range of skills and identifying appropriate modes of study: 'Improved my communication skills' (ED); 'Made me aware of what I should be looking at, rather than just taking notes about everything' (AR); 'I ripped up my early report and re-wrote it—restructured it' (MG); 'It improved my understanding, the way I actually study. I am an improved student... and I think SI really helped in that' (TD).

A number claimed it helped with exams, some with regard to preparation and practice for multiple choice, others in that through the additional clarification and understanding gained, final revision was easier and took less time: 'Brilliant! Saved a lot of revision time... when you come to read your notes towards revision time it is clearer because the lectures have been reinforced' (AG); 'I don't have to sit down in the last week and cram' (EK).

Only one claimed that it had specifically helped with understanding lectures, but with regard to improving knowledge and understanding generally, comments included: '... it focused you on what you were supposed to do' (AG); 'I came out [of an SI session] thinking I know about this now.' (SM); '... the fact that they [the sessions] followed the lectures—it added value' (MG).

How the SI process had helped

Apart from finding that others were in the same boat, all the other comments on how the SI process had helped identified aspects of discussion: through the sharing of ideas and approaches, by being able to ask questions they were too embarrassed to ask in lectures/seminars, and through trying to explain to others. This seems to confirm our initial belief that SI could provide the necessary opportunity for discussion that Raimondo asserts is so necessary. 'Kicking ideas around' (LK); 'It's not the same asking lecturers questions' (AG); 'Being able to talk... discussing what was confusing or troubling' (TD); 'It clarified things in your own mind if you had to explain it' (RN).
Improving final grade

Although the questionnaire results suggest that improving the final grade is a significant motivator, the interviews revealed that their motivations depended greatly on the student's starting point, ranging from trying to get the best possible grade to just trying to make sure of a pass. Regardless of their starting point, however, it is clear from some of the comments in the interviews that SI was also encouraging the students to take a deeper approach to their learning, at least in part, and one student took a totally deep approach, claiming that her intention was to increase her understanding, any improved grade being seen as purely a by-product. 'I want to understand what I am doing' (RN); 'I joined SI to have a clearer picture and get some experience from Stage 2 students' (YC); 'My way of thinking has improved [as a result of SI]' (EK); 'It improved my understanding . . . opened up new ideas to me' (TD).

Sustained benefits of SI

Four popular Stage 2 business modules running in 1993/4, which students who had experienced SI in the previous year were likely to attend, were analysed to determine if their results continued to be better than those students who had not chosen to attend SI. The result is given in Table 2.

The difference in mean marks of over 6 per cent is statistically significant (T=2.09; df=86; p<0.05). While obviously no direct linkage can be proved from this data, one possible interpretation has to be that the SI in Stage 1 has had a sustained effect.

In pursuing this hypothesis in the questionnaire, when asked whether SI had helped with subsequent work on other modules, of those attenders who responded to this question, 21 (40 per cent) said Yes, against 31 who said No. Interestingly, exactly the same percentage felt this from those who attended only once or twice (8 out of 20 respondents) as for those attending three times or more (13 out of 32). Their judgment of how it had helped is given in Table 3.

Although the numbers are too small to attach any statistical confidence to the percentages, it is nevertheless interesting to note that information gathering and the approach taken to coursework are the two areas where most feel they have gained some lasting benefit, and a significant number suggest improved confidence, and this fits with what the interviewed students said. In fact all but one of those interviewed said that SI had had some continuing benefit in other modules. Explanations of how it helped, included: 'It helps you approach any particular piece of coursework' (RN); 'The report format will help with other modules' (SM); 'I suppose I am more organized now when it comes to writing essays' (TD); 'I now know how to go about starting a project . . . how to get the information and what to do with all the information' (LK); 'In the lectures, being able to know what to take out of a lecture' (AG); 'It's indirectly helped me with other modules . . . I build the confidence in myself to do other modules as good as I have done in the Business field' (JG).

Limitations

Despite the claims of sustained and transferable benefit those interviewed did also express reservations about the degree of transferability. Essentially, they seem to argue that the degree to which benefits are sustained or transferable is limited by the similarity of context of the subject matter, the teaching approach, and/or the nature of the task and the skills required. 'Different modules make use of different methods [of study]; social sciences, natural sciences

<table>
<thead>
<tr>
<th>Link between SI and later performance in Stage II</th>
<th>NO SI</th>
<th>SI</th>
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<tr>
<td>Stage II mark</td>
<td>48.8</td>
<td>54.9</td>
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<td>Sample size</td>
<td>57</td>
<td>31</td>
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### Table 3

<table>
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<tr>
<th>Helped In other modules (21 Respondents)</th>
<th>NOT TRUE No.</th>
<th>No.</th>
<th>VERY TRUE No.</th>
<th>(21% of all respondents)</th>
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</thead>
<tbody>
<tr>
<td>Improved note-taking</td>
<td>6</td>
<td>1</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>Improved information gathering</td>
<td>2</td>
<td>0</td>
<td>7 (62%)</td>
<td>6</td>
</tr>
<tr>
<td>Improved approach to coursework</td>
<td>1</td>
<td>3</td>
<td>9 (71%)</td>
<td>6</td>
</tr>
<tr>
<td>Improved exam preparation</td>
<td>4</td>
<td>6</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Improved groupwork skills</td>
<td>3</td>
<td>4</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Improved confidence</td>
<td>2</td>
<td>3</td>
<td>7 (43%)</td>
<td>2</td>
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<tr>
<td>Other</td>
<td>0</td>
<td>0</td>
<td>0</td>
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</table>

### ADDITIONAL FINDINGS

The data strongly suggest that:
- SI appeals more to female students, and students who are, on average, slightly older
- there is a significant connection between SI attendance and better results on these modules, whoever the student is
- it is attendance at some SI rather than the amount of SI which appears to be most important
- SI seems to have a sustained and transferable benefit, but within the constraints of context.

are quite different... so I use different methods in different modules' (JG); 'Because I am doing law I don't think it does any help to modules of mine' (YC); 'I think note-taking has improved, but I think where I am doing languages the actual structure of lectures is different' (AG); 'The only module we seem to do where we use groupwork along these lines is in what I call the Business modules'.

'I didn't go to [SI in] 7002 because I was confident' (SM); 'I didn't bother going a second term because there wasn't coursework... I didn't feel it would help my understanding at all as I didn't feel I needed the help, and I went this term, I went on the first one to discuss what the questions meant but after that I didn't feel I would have benefited that much more from help' (RN); 'Only went the first term but now I've kept the same friends and we almost do our own SI' (AR).
LIMITATIONS OF THE RESULTS

Firstly, it has to be noted that all these results have come from a business education context and a modular course in one university, and may therefore be peculiar to teaching in that discipline and/or that context.

We are also aware that there is a problem in demonstrating a direct causal link between SI attendance and better results, and there is always the possible accusation that both are due to motivation. In fact, having provided so many opportunities to attend SI during the week, one could almost argue that SI attenders must be more motivated because apart from lack of motivation there was little else to stop them (except perhaps a belief that they did not need it, the reason given by 26.3 per cent in the questionnaire). This makes the fact that 59 per cent did give inconvenient times as their reason for non-attendance in the questionnaire very difficult to believe.

Even if SI attenders are more motivated, there is however the fact that, assuming their motivation levels with regard to learning have remained constant, their extra motivation has not resulted in the past in better examination results than those of the presumed less motivated non-attenders. In the United States they have also done some research into this area which attempts to isolate motivation as a factor and claims to have shown that it is insufficient to explain the success of SI attenders (Martin et al, 1992).

We would have liked to have been able to do more statistical analysis of the Stage 2 results and to have compared them with results in other modules, for two reasons. First, if our hypothesis is correct that SI has a sustained benefit, but only within a limited context, we would have expected to find the previous SI attenders not doing significantly better on dissimilar modules. Second, if that did prove to be the case it would be further evidence that the improved results of these students in the business modules cannot simply be because they are more motivated or more able. Unfortunately we would have needed much more detail about the nature of every Stage two module, in terms of the subject matter, the teaching approach, and the nature of assessment tasks and the skills required, than was available.

When it comes to exactly how SI may have benefited attenders, we must also be cautious of the results for two reasons — the fact that the numbers involved become quite small, and the fact that in the questionnaires and interviews we are dealing primarily with perceptions.

RECOMMENDATIONS AND FURTHER RESEARCH

On the basis of our findings so far, we believe we have at least a prima facie case that SI is not only a benefit to traditionally difficult courses with high failure rates but also on very large introductory courses where otherwise the subsequent work of the students may be at risk.

We recognize that there is a need for further research, in particular to gather harder statistical data on the sustainability and transferability of the benefits gained from SI, and also further consideration of whether the particular benefits perceived by the students are actually the benefits gained, and why there is a gender imbalance in attenders.

REFERENCES


ACKNOWLEDGEMENT

We would also like to acknowledge our great debt to Roger Lindsay, and thank him for all his help and invaluable advice on this project.

BIOGRAPHICAL NOTES

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Improving students’ thinking and learning skills through supplemental instruction

The Oxford Centre for Staff Development

Improving Student Learning Through Assessment and Evaluation

Editor Graham Gibbs
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Improving students' thinking and learning skills through Supplemental Instruction

Chris Rust and Margaret Price (Oxford Brookes University)

Background

In 1992/93 Oxford Brookes University piloted an SI scheme in the School of Business. The pilot was funded through the University's Staff Release Scheme which aims to promote innovation in teaching and learning. The scheme provided us with the hours we needed to run and monitor the scheme. In 1993/94 we received additional funds from the HEFCE as part of a research bid from a consortium of ten institutions, which we have used to continue the pilot and research its effectiveness.

What is SI?

Supplemental Instruction (SI) was developed in the mid-1970s at the University of Missouri Kansas City (UMKC) to address a number of problems, most importantly: a high failure or drop-out rate on certain courses, and the fact that traditional student support services are seen as remedial, and are generally turned to too late, if at all. SI is different in that it is aimed at what are described as high-risk or traditionally difficult courses, and offers optional SI sessions from the very beginning to all students on that course interested in improving their performance. These sessions are taken by trained SI leaders who are students who have already successfully taken and passed the particular course.

Theory of SI

The most important characteristic of SI is that it is not didactic teaching; SI leaders are trained as facilitators, to organize and enable the students attending their session to find the answer for themselves. It is an axiom of SI that the answer to the students' problems should be in their collective notes and/or heads. If the answer cannot however be found the SI leader should redirect them to their lecturer. Another key aspect of SI is that many of the students' problems are to do with study skills and SI is intended to help them to address these problems in relation and with relevance to the subject being studied, rather than in isolation as on study skills courses.

US claims for SI

After a rigorous review process in 1981, the SI Program became one of the few post-secondary programmes to be designated by the US Department of Education as an 'exemplary educational program'. The National Diffusion Network, the national
dissemination agency for the US Department of Education, has provided federal funds for dissemination of SI, and it can now be found in over 30 per cent of American institutions of higher education.

The three claims of SI's effectiveness, validated by the US Dept of Education are:

- Students participating in SI within the targeted high risk courses earn higher mean final course grades than students who do not participate in SI. This is still true when differences are analysed, despite ethnicity and prior educational achievement.
- Despite ethnicity and prior academic achievement, students participating in SI within targeted high-risk courses succeed at a higher rate (withdraw at a lower rate and receive a lower percentage of D or F final course grades) than those who do not participate in SI.
- Students participating in SI persist at the institution (re-enrolling and graduating) at higher rates than students who do not participate in SI.

**Why SI for Oxford Brookes?**

We knew that SI schemes are intended to be run on programmes that are considered 'difficult' but at Oxford Brookes we decided to run it for our business programme in the modular course. Generally business is not seen as traditionally difficult and does not have a high failure or high drop out rate. We chose to run it because of the large student numbers. The flexibility of our modular programme allows first-year student to take several modules from outside their chosen field. Many of them choose to take the business modules, the result being that these modules run with between 400 and 500 students each term. Despite its original purpose SI seemed to be a mechanism whereby students could be helped to come to terms with the sheer scale of the operation and thereby support their learning.

**The Course Context**

The three stage I modules which offered SI were the compulsories for the Business Administration and Management course. This course must be combined with another course from the modular programme and leads to a joint honours degree. For full-time students Stage I is equivalent to the first year and they must pass nine modules including the compulsories to progress to Stage II. This is an important factor to consider as there is no incentive to do better than pass apart from the fact that a better grounding in the subject should benefit them later in the course. The wish to do well per se comes from the motivation of the student rather than the instrumental gain of a higher degree classification.

The BA&M course has approximately 80 students in Stage I (60% UK, 40% Overseas), the remaining students taking the modules (approx. 400) come from other courses within the modular framework. For some of these students the Business modules may have been adopted as compulsories for their courses within the School of Business, e.g. Marketing Management, Retail Management, use one or two of these modules. Other-courses may recommend the modules to their students while the remaining students have chosen the module out of personal interest. Therefore the students who were offered SI had a wide
variety of backgrounds, knowledge and motivation. They could not by any stretch of the imagination be considered an amorphous group.

One of the business compulsories runs each term, *Introduction to Business* in Autumn term, *Management Concepts* in Spring term and *Changing Environment of Business* in Summer term. They each adopt a similar format for delivery but use different assessment methods. Each module has nine teaching weeks and each week there is a one-hour lecture followed by a two-hour seminar with students in groups of 18–20. The lecture is delivered twice in order to accommodate the large numbers of students and any student with timetable clashes. An effort is made to group the students on the same course in seminars, especially the BA&M students to whom these modules ‘belong’. The lecture each week is delivered by a subject specialist and the seminar activities are designed to check students’ understanding of lecture material and develop their learning. Consequently seminar activities vary week by week and include the use of case studies, role plays, presentations etc. At the start of the module each student is provided with a workbook which contains an outline of the course, a week by week breakdown of the reading, lecture review questions and seminar material and the assessed coursework tasks.

On the first two modules the assessment was 50 per cent coursework: 50 per cent exam and on the third module it was 100 per cent coursework. The coursework tasks included a major project to examine the operations and performance of real business, investigation of the work of a manager including conducting an interview, making a group presentation on the topic of training and mapping the environment of a particular industry. The examinations used multiple-choice questions to cover the whole spectrum of material covered.

**SI Attendance (1992–93)**

In Autumn term, with eight trained SI leaders (two working together), we offered seven one-hour sessions at different times in the week totally unsure how many 1st-year students would attend any one. In fact we were so concerned that the sessions could be overwhelmed that we only offered them to half the students taking the module *Introduction to Business* i.e. those attending one of the lecture slots. In the event the attendance was a little disappointing. Out of 265 students who could have attended, 50 (19%) chose to attend at least one session in the term. We are still not sure why more did not attend; one possible reason could of course be that the lectures and seminars were doing a good enough job for the majority of students. Out of the 50 who did attend however, 54 per cent attended more than once during the term and 40 per cent attended more than twice, which would seem to suggest that for those students SI was meeting a need.

In the Spring term we offered SI to all the students on *Management Concepts* in the hope that this would increase attendance at individual session and thereby utilize the SI leaders we had to the maximum. The attendance was 16.5 per cent at least once with 49 per cent of those attending more than once and 40 per cent more than twice.

The Summer module, *Changing Environment of Business*, attracts fewer students than those in the Autumn and Spring terms, but SI attendance was 21 per cent at least once with 63 per cent of them attending more than once and 35 per cent attending more than twice.
Research Intentions

There were at least four:

• Although the improvement of results apparently achieved by SI are well documented for the US there is very limited data for the UK or in non-traditional SI subject areas such as Business Studies. We wanted to see whether SI did improve the students’ results.
• If SI is beneficial, we wanted to know in what ways.
• We wanted to see whether students who attended SI had any particular characteristics and find out why they attended.
• We wanted to see whether any improvements gained through SI were sustained and transferred into later courses.

Research Methodologies

We have gained both quantitative and qualitative data, as follows:

• A database has been created of the 563 students who attended one or more of the three consecutively run Stage I business modules in 92/93 on which SI was offered, which has been subjected to statistical analysis. The database includes performance data from three Stage 2 modules in the 1993/94 year of those students who attended SI the previous year.
• A questionnaire was issued (see Appendix) to students on the Introduction to Business module in the 1993/94 cohort, which has been analysed.
• Face-to-face interviews with students on the Introduction to Business module in the 1993/94 cohort who attended SI more than twice.

The Results

Statistical analysis of the database reveals:

• no correlation between entry qualifications and performance on the modules;
• high correlation between performance on these modules and other Stage I modules; i.e. these are not atypical modules in terms of difficulty;
• no correlation between SI attendance and entry qualifications;
• no correlation between SI attendance and average Stage I mark i.e. SI attenders would appear to be typical students in that they are not weaker or more able;
• no correlation between SI attendance and age but a significant difference in mean age:
  attenders 23.5, non-attenders 22.1
  \( t = 2.95; \ df = 563; \ p < 0.005 \)
• significant difference in gender between SI attenders and non-attenders:
  attenders 73.5% females, total cohort 57.4% female
  \( \chi^2 \) with Yates’ correction = 7.25; \( \ df = 1; \ p < 0.01 \)
• no correlation between SI attendance and ethnic background;
• no correlation between SI attendance and first language;
• no correlation between amount of SI attendance and results, but a significant difference between attenders and non-attenders:

Module 7001
Introduction to Business
SI attenders* 60.8, non-attenders 56
\((t = 2.62; df = 429; p < 0.01)\) *attended at least once

SI attenders*61.4, non-attenders 56.2
\((t = 2.18; df = 429; p < 0.05)\) *attended at least twice

Module 7002
Managing Concepts
SI attenders #58.5, non-attenders 54.7
\((t = 2.13; df = 398; p < 0.05)\)
#attended at least once on either 7001 and 7002

SI attenders#60.7, non-attenders 54.6
\((t = 3.01; df = 398; p < 0.005)\)
#attended twice on either 7001 or 7002

Module 7003
Changing Environment of Business
SI attenders§ 56.6, non-attenders 45.2
\((t = 4.04; df = 189; p < 0.0001)\)
§attended at least one SI session on one of the modules

SI attenders§59.6, non-attenders 46.4
\((t\{separate variances\} = 6.2; df = 126.2; p < 0.0001)\)
§attended at least two SI sessions in one of the modules

The questionnaires show very similar results with regard to the characteristics of attenders and non-attenders [NB 350 were distributed after a lecture in week 9 and 177 were returned – a 51% response. Over a third of the respondents (36.7%) had attended SI at least once]:

• no significant difference in age, race or the student’s first language between SI attenders and non-attenders;
• significant difference in gender between SI attenders and non-attenders: attenders 73.8% female, all responders 65.5% female.
Of the respondents who had attended SI, 36 (57%) had attended more than twice. Their judgment on their reasons for attending is shown in Table 1.

Table 1.

<table>
<thead>
<tr>
<th>REASONS FOR ATTENDING MORE THAN TWICE: (36 respondents)</th>
<th>NOT TRUE N</th>
<th>N</th>
<th>VERY TRUE N</th>
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<tr>
<td>MEET OTHER STUDENTS</td>
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<td>9</td>
</tr>
<tr>
<td>IMPROVE STUDY SKILLS</td>
<td>0</td>
<td>7</td>
<td>14</td>
</tr>
<tr>
<td>IMPROVE KNOWLEDGE/UNDERSTANDING</td>
<td>0</td>
<td>4</td>
<td>18</td>
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<tr>
<td>HELPED WITH LANGUAGE OF SUBJECT</td>
<td>2</td>
<td>14</td>
<td>11</td>
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<tr>
<td>INCREASED CONFIDENCE</td>
<td>3</td>
<td>10</td>
<td>13</td>
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<tr>
<td>HELPED ME UNDERSTAND COURSEWORK</td>
<td>2</td>
<td>14</td>
<td>11</td>
</tr>
<tr>
<td>WANTED TO IMPROVE FINAL GROVE</td>
<td>2</td>
<td>3</td>
<td>10</td>
</tr>
<tr>
<td>LIKED SI LEADER</td>
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<td>8</td>
<td>16</td>
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<tr>
<td>LIKED GROUP</td>
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<td>16</td>
<td>9</td>
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</table>

OTHER REASONS: (only 1 response): "Helped broaden and examine business in depth."

Asked whether SI had helped with other modules, 21 (40%) said Yes, against 31 who said No. Their judgment of how it had helped are shown in Table 2.

Although numbers are too small to attach any statistical confidence to the percentages, it is nevertheless interesting to note that information gathering and the approach taken to coursework are the two areas where most feel they have gained some transferable benefit.
Table 2

<table>
<thead>
<tr>
<th>HELPED IN OTHER MODULES - 21 RESPONDENTS</th>
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<th>----</th>
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<tr>
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<td>6</td>
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<tr>
<td>IMPROVED STUDY SKILLS GATHERING</td>
<td>2</td>
<td>0</td>
<td>7</td>
<td>6 (62%)</td>
</tr>
<tr>
<td>IMPROVED APPROACH TO COURSEWORK</td>
<td>1</td>
<td>3</td>
<td>9</td>
<td>6 (71%)</td>
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<tr>
<td>IMPROVED EXAM PREPARATION</td>
<td>4</td>
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<td>3</td>
<td>7</td>
<td>2 (45%)</td>
</tr>
<tr>
<td>OTHER</td>
<td>2</td>
<td>14</td>
<td>11</td>
<td>4</td>
</tr>
</tbody>
</table>

(% are of all respondents)

Research in Progress

There are three strands of the research still in progress:

- the face-to-face interviews with those who attended SI more than twice are still being transcribed;
- further analysis of the data to see if there is any significant difference between coursework results and examination results in the results of SI attenders;
- the data entry and analysis of three second-stage modules to consider the current performance of previous SI attenders.

Problems with the Results

We are aware that there is a problem in demonstrating a direct causal link between SI attendance and better results, and there is always the possible accusation that both are due to motivation. In fact, having provided so many opportunities to attend SI during the week, one could almost argue that SI attenders must be more motivated because, apart from lack of motivation, there was little else to stop them (except perhaps a belief that they did not need it, the reason given by 26.3% in the questionnaire) which makes the fact that 59% did give inconvenient times as their reason for non-attendance in the questionnaire very difficult to believe.
Even if SI attenders are more motivated, there is however the fact that, assuming their motivation levels with regard to learning have remained constant, their extra motivation has not resulted in the past in better examination results than those of the presumed less motivated non-attenders. In the States they have also done some research into this area which attempts to isolate motivation as a factor and claims to have shown that it is insufficient to explain the success of SI attenders (Martin et al., Supplemental Instruction: Improving First-Year Student Success in High Risk Courses, Freshman Year Experience Monograph Series, No 7, 1992).

When it comes to exactly how SI may have benefited attenders, we must be cautious of the results for two reasons – the fact that the numbers involved become quite small, and the fact that we are dealing primarily with perceptions.

Conclusions

• The data strongly suggests that there is a significant connection between SI attendance and better results on these modules, whoever the student is, but it is attendance at some SI rather than the amount of SI which appears to be most important.

• SI appeals more to female students, and students who are, on average, slightly older.

Acknowledgement

We would like to acknowledge our great debt to Roger Lindsay, and thank him for all his help and invaluable advice.

Using and experiencing assessment

Assessment for Learning in Higher Education

EDITED BY
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Using and Experiencing Assessment

Sally Brown, Phil Race and Chris Rust

INTRODUCTION

Many of us working in higher education regard assessment as being a crucial element of the learning process, and yet training is rarely given to lecturers new to the profession or wishing to develop their assessing abilities further, on how to assess well in order to help students to focus their activities and learn more effectively. All three of us run workshops and other forms of training in which the experience of undertaking assessment activities and actually being assessed forms a substantial part of the programme.

This chapter explores some of the learning that can be derived from these kinds of workshops, drawing on our own experience and that of participants in our interactive sessions. To develop these ideas, here we pose a number of key questions that assessors should ask themselves and explore some appropriate responses.

HOW GOOD ARE YOU AT ASSESSING?

This first question is a crucial one, because we assert that assessors need to bring to the task of assessing the same level of self-evaluation and reflective practice that we often require of learners. Because we happen to be employed in positions where part of the work is to award learners grades or marks for their work, it is easy to suppose that we are capable of doing this part of our work competently and almost automatically.

For much of the time the act of assessing is done quite privately; in other words, there is not much opportunity for lecturers to gain feedback about how well (or otherwise) they are assessing. It is often only when staff find themselves double-marking or working in parallel using agreed assessment schemes, that they discover the frightening truth that assessment tends to be subjective and unreliable. The following checklist of
questions is intended to help you to conduct a self-appraisal. Use it to evaluate how effective your system is and change your strategies accordingly.

- Have you sufficient time to devote to assessing?
- Are you able to formulate clear assessment criteria for each piece of work you assess, making assessment as objective and fair as possible?
- Are you able to share assessment criteria with learners? For example, can you agree assessment criteria in advance when setting coursework?
- Can you share past assessment criteria with learners so that they can see how their work is assessed?
- Can you work with colleagues so that you have someone else's ratings of a cross-section of your students' work, and are alerted to any area where your assessment may not be ideal?
- Is it possible for you to involve learners in self-assessment of their own work by providing them with clear, understandable marking schemes and criteria? This helps learners think more deeply about their work than if they simply handed it to you to mark. Scanning how well learners have self-assessed an exercise and commenting on particular points takes much less time than marking it all yourself.
- Can you build peer-assessment into the coursework elements of your subject? Peer-assessment helps learners to understand what the 'rules of the assessment game' are, but (more importantly) allows them to derive a great deal of useful feedback from each other.
- Are you able to participate in assessing that is necessarily moderated and checked - for example A-level scripts? Having to stick closely to an agreed assessment scheme is one of the best ways to learn how to make your own assessment schemes rigorous and fair.

**WHAT ARE WE ASSESSING?**

A key question that needs to be asked before even starting is, what are we assessing? Do we know, and do the learners know? If we are assessing an essay, for example, are we assessing the content, the style, or the presentation? And if some combination of these, with what weighting to each?

And are we assessing the product, or the process that produced it? The
former may be fine if this is a summative exercise, at the end of a course, whose major purpose is to decide who should fail or pass, and with what degree classification. On the other hand, if the assessment is to serve a formative function, that is to assist learners to do better next time, we need to examine the process that led to the product. Seeing a first draft, and then a revised version of the essay, supported by a reading log, for example, can be a really powerful developmental process. There is also the question of whether skills, such as leadership, or the ability to work in a group, are to be assessed.

WHY ARE WE ASSESSING?

Among the many reasons for undertaking the task of assessment that we have identified in our workshops, these are some of the most important:

- to provide feedback to learners so they can learn from mistakes and build on achievements
- to classify or grade student achievement
- to enable learners to correct errors and remedy deficiencies
- to motivate learners and to focus their sense of achievement
- to consolidate student learning
- to help learners to apply abstract principles to practical contexts
- to estimate students' potential to progress to other levels or courses
- to guide selection or option choice
- to give us feedback on how effective we are being at promoting learning
- to provide statistics for internal and external agencies.

Set against these positive reasons for assessment, we should also consider whether our reasons for our choices about what and how we assess also include tradition (‘we’ve always done it this way’), inertia (‘why should we change how we are doing it?’) and a desire to control (‘learners will just have to buckle down and do what they are told!’).

In order to assess well, we need to clarify for ourselves and for our learners what the specific purposes of an assessment activity are and to design it accordingly.
HOW CAN WE MAKE ASSESSMENT FAIR? WHERE DO OBJECTIVITY AND SUBJECTIVITY FIT IN?

The enemy is the tendency to put down the number (or grade) we first thought of. There will always remain a degree of subjectivity in assessing, but the effect is greatly reduced by the processes of formulating clear criteria, and working out a detailed marking scheme showing exactly how many marks go to each element of students’ work. An analogy could be that using a detailed assessment scheme is similar to measuring the temperature with a long, fine thermometer with clear gradations showing every tenth of a degree. Probably the fastest way to check the objectivity of our assessment is to get two or three colleagues to double-mark samples, and then to discuss differences. We would argue that an even better way is to make assessment public by sharing marking schemes and assessment criteria with learners, and allowing them to discuss the interpretation of the criteria as reflected in the marks that are awarded to them.

HOW SHOULD WE ASSESS ARTEFACTS? (AND SCIENTEFACTS AND ENGINEEREFACTS!)

In many subject areas it is necessary to assess objects and other items that have been produced by the learners, for example sculptures, engineering products, designs, plans, fashion garments, photographs, models and other artefacts. In these cases, it is even more important that the brief to which the student is working is crystal-clear both to the student and the assessor. Where there is no shared agreement on this, often judgements made can be based largely on subjectivity and good old ‘gut reaction’, often cloaked by the term ‘experience’.

One very good way of ensuring that learners are working on the right lines is to give them, if possible, lots of examples of previously submitted artefacts for them to appraise. By looking at examples of both highly rated and low-marked items and by discussing the qualities that make them so with the tutor and with peers, learners are more likely to build up a sense of what is to be achieved and what constitutes successful practice.

HOW CAN WE GET THE ASSESSMENT RIGHT?

Assessment criteria need to be explicit, and understood by everyone, staff and learners. Simply issuing them along with the task is better than nothing, but it doesn’t ensure that they are understood. What exactly is meant by ‘analysis’, for example? Marking exercises, using the criteria, and
seeing examples of marked work, with accompanying comments, are two ways in which the learners' understanding of the criteria can be developed. This still leaves the question of ownership; if the criteria are those of the tutor, the learners may never feel quite as comfortable as they would have if they had participated in drawing them up. Involving the learners in deciding which criteria should be used to assess a particular task is an excellent exercise in developing their understanding of the whole assessment process, and should produce better work as a result.

One further issue connected to criteria is that of the level of work they demand. Some criteria can be satisfied by work of a low level. If the task and the criteria are undemanding, they may be satisfied perfectly (so should it receive an 'A'? ) when it is really only C-grade work. One possible solution to this is to use range statements which give some indication of the level of required achievement in specific contexts.

HOW CAN WE WEIGHT CRITERIA TO FOCUS STUDENT ACTIVITY APPROPRIATELY?

This works best when learners themselves have been involved in formulating a set of assessment criteria for a task they are about to start (for example, preparing to give a presentation, or to write a particular report, or to put together essays on a given theme). However, even if it is necessary to supply learners with the assessment criteria as a fait accompli, it is still useful to get learners to negotiate how best to weight them. An effective way of doing this is as follows. Suppose seven assessment criteria have been formulated:

- Write the criteria up on a flipchart or overhead slide, so all of the class can see all of the criteria simultaneously.
- Go through each of the criteria, saying, 'What this really means is...' and adding one or two explanatory key words beneath each criterion, so that the whole group has a shared understanding of the meaning of the words used in the criteria.
- With groups of 40 or less: allocate a total score for the seven criteria (eg, 40 marks). Ask each member of the group individually and privately to split the 40 marks between the seven criteria. Remind them that they can award zero to any criterion they don't feel is important at all, and can give the lion's share of the 40 to a particularly important criterion if they wish. With groups of more than about 40 learners, it works well if you divide the class into groups so that each group can undertake the above process.
Using an overhead transparency or flipchart, collect all the scores, in other words, ask everyone (or every group) for the score they awarded to each criterion, and collate them by working down the list.

There will usually be a clear trend, seen through the numbers, showing which of the criteria are the most important ones. It is often well worth exploring with the learners why particular criteria scored high marks from some of them, and low marks from others - such discussions usually throw further light on the significance of the criteria and how best to interpret them.

It is often possible to work out the average score for each criterion, which then becomes the weighting in the assessment scheme.

The process outlined above is particularly useful when learners will be engaged in applying the criteria to each other's work. Their shared understanding of the exact meaning of the criteria (and their ownership of the scoring scheme) combine to enhance the quality of their experience of peer-assessing.

WHO IS BEST PLACED TO ASSESS?

Having decided what is to be assessed, an important linked question is, 'Who can undertake that assessment most effectively?'

Traditionally, assessment has been carried out by tutors and if what is being assessed is a product such as an essay, they may be the best people to do this. However, since we assert that involving learners in the process may actually help to develop their own judgemental skills, and thereby improve future performance, self- and peer-assessment can fulfil an important, formative function.

Moreover, if certain skills or aspects of the process are being assessed, then the tutor may not be in any position to make a judgement. For example, learners themselves may be the only ones who can assess what has actually been learned or gained from carrying out a particular task. This might be accessed through a piece of reflective writing, for example. If, however, individual students' contributions to a group project are to be assessed, they may not be as well placed to make a sound judgement as the peers with whom they have been working.

HOW CAN WE USE ASSESSMENT TO EMPOWER LEARNERS?

Assessment systems where the responsibility for assessment lies squarely in the hands of tutors, with the learners as passive recipients of judge-
ments handed down to them by the tutor, can make learners feel powerless. When assessment is done in secret, with tutors keeping to themselves the grounds upon which they make assessment decisions, learners can find themselves in a client role and this may breed distrust and a feeling of 'us and them'.

If we involve learners in their own assessment, or at least provide plenty of opportunities for learners to interrogate us and the criteria, this allows us to share power with them and they then tend to become more confident about their learning as a whole. In workshops, really effective cooperative learning activities can be enhanced by examining the seemingly arbitrary nature of tutor assessment. Where participants are asked to undertake a task and the products are assessed by the tutor, it is often the case that they query the authority of the tutor, especially if they are involved in self- and peer-assessment.

HOW CAN ASSESSMENT IMPROVE LEARNING?

The key to the use of assessment as an engine for learning is to allow the formative function to be pre-eminent. This is achieved by ensuring that each assignment contains plenty of opportunities for learners to receive detailed, positive and timely feedback, with lots of advice on how to improve. This not only informs student activity, but also enables them to develop continuously and to achieve ever-better results. Where pressures on tutor time make high levels of tutor feedback impractical, we would again argue for the use of self- and peer-assessment. Because they are regularly being asked to make evaluative comments about their own and each other's work, learners participating in these methods learn a lot about the processes of assessment and of learning, and this gives them insights into ways of improving their work.

HOW CAN WE ENSURE RELIABILITY AND VALIDITY?

These words are used widely in discussions on the quality of assessment. However, they often mean rather different things to different people. It is useful to qualify each of these terms with these checklist questions:

Reliability
- Would different assessors award the same marks or grades to each student?
- Is the assessment scheme one which is fair to all learners?
Validity

- Does the assessment scheme reflect the published aims, learning outcomes, objectives or competence outcomes of the course?
- Is the assessment measuring the 'right things'? In other words, is the assessment addressing the skills and competences which learners are intended to develop, rather than being over-influenced by (for example) the flair with which learners write essays?
- Is the assessment scheme practically feasible?

HOW CAN WE GET THE STATISTICS RIGHT?

In turning assessment into marks, it is vitally important that tutors take account of the following issues and to remember that assessment, at best, is a very inexact science:

- If assessment criteria are each allocated specific scores, the overall mark will almost certainly go up (grade inflation).
- If learners have been significantly involved in setting the assessment tasks and criteria, performance may be generally better and marks higher overall as a result.
- If groups are assessed, there may be a regression to the mean, because weaker learners are likely to be brought up by the abilities of others in the group, and more able learners may have their marks brought down by less able colleagues.
- With an increase in modular courses and continuous assessment schemes, problems can occur in relation to overall course marks, when like is not being added to like. Marks originating from different elements or aspects of an assignment are frequently just added together, and averaged with, other marks derived from entirely different contexts, and this can skew the final total in a disproportionate way.

Often the most appropriate outcome of an assessment activity is not a simple mark or grade, but a descriptive profile of achievement, which gives a more complete breakdown of what a student knows or can do, perhaps in the form of a record of achievement which can be used for admission, in charting personal development within a programme of study and in seeking employment on graduation (Knight, 1995).
WHAT ABOUT ASSESSING GROUPS?

There are good reasons for setting group tasks and assessing groups:

- it can help to develop a range of important skills
- more can be achieved by a group than by an individual
- there is often less marking and therefore less demand on resources.

Where assessment is used formatively, learners may be involved in assessing the products of other peer groups (inter-peer group assessment) or in assessing the processes by which their own group members have interacted (intra-peer group assessment).

When it comes to marking and summative assessment, whether self-, peer- or tutor-assessment is used, there is always the problem of how to make group assessment fair, given the opportunity for some learners to ride on the backs of others. This may actually be more an imagined problem than a real one; it is most important to have a clearly stated mechanism which specifically deals with this, even if in reality it can only be partially successful. Some possible mechanisms that do this are described in detail in Brown et al. (1994, Ch. 6).

There is still considerable argument about whether students’ ability successfully to evaluate themselves and their peers is affected by factors such as race, age and gender. Such evidence as exists is contradictory: Gibbs (1991) argues that female trainee teachers on a postgraduate certificate at Oxford Brookes University tended to under-rate themselves in relation to the males, whereas Race (1994b) says that he noticed no such bias. The important learning point seems to be that self- and peer-assessment need rehearsal and negotiation before implementation in a mark-bearing context. There must also be substantial reliance (as in all methods of assessment) on the use of appropriate and published criteria, supported by appropriate evidence.

WHY SHOULD WE BUILD IN VARIETY INTO OUR ASSESSMENT PRACTICES?

Perhaps the most powerful criticism that can be levelled at traditional approaches to assessment is that students’ grades or degree classifications depend too much on a limited set of abilities, including:

- their skill at delivering written exam answers against the clock
- their ability to ‘keep their cool’ under time pressure and in an unfriendly environment
If assessment is to be a useful part of the learning experience of learners, it is useful to employ a fairly diverse variety of assessment types and formats. Not only do we need a range of assessment methods if we are to assess a range of competences, but also we should remember that all forms of assessment discriminate in some way against some groups of learners. Using a good range of assessment methods also brings variety to students’ learning experiences.

A wide variety of types of assessment exists and is described in more detail by Brown and Knight (1994). Methods include:

- activities putting into perspective a topic or issue
- case studies and simulations
- critical reviews of articles, viewpoints or opinions
- critiques
- dissertations and theses
- essay plans (almost as much thinking can go into making these as into writing full essays)
- essays, formal and non-traditional
- fieldwork, casework and other forms of applied research
- laboratory reports and notebooks
- literature searches (for example, the preparation of annotated bibliographies)
- in-tray exercises
- oral presentations
- poster exhibitions
- practical skills and competences
- projects (individual, or group)
- reviews for specific audiences
- seen written exams (where learners have the questions in advance)
- strategic plans (testing higher-order skills than can usually be tested in exams)
- unseen written exams (too many of these still exist!)
CONCLUSIONS

Participants in our workshops often describe how being assessed on the outcomes of a task, however small-scale, helps them to remember all the feelings and negative responses they associated with assessment in their own learning histories. Our aim, both in workshop sessions and in this chapter, is to promote a more strategic approach to assessment in which tutors clarify in advance the purposes and required outcomes of any assignment, then design assignments accordingly so that they really achieve what they set out to do. Assessment then can promote active learning, rather than being a rather sterile, end-point activity, useful only to pigeonhole learners and to maintain the status quo.
Rust, C. (1997)

Assessing what really matters in the major and the degree

*Assessment Update*, Vol. 9, No 6
Nov/Dec, 6-7
Call for Contributions

The editor welcomes short articles and news items for Assessment Update. Guidelines follow for those who would like to contribute articles on outcomes assessment in higher education.

- **Content:** Please send an account of your experience with assessment in higher education. Include concrete examples of practice and results.
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- **Format:** In addition to standard manuscripts, news may be contributed via telephone call, outline, or letter. The standard manuscript format is a 60-space line with 25 lines per page. If word processing is used, please submit a 3½” diskette and three paper copies of your article. WordPerfect 5.1 or 6.0 is preferred.
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Please address all contributions to Trudy W. Banta, Editor, Assessment Update, Rm. 140 Administration Bldg., 355 N. Lansing St., Indianapolis, IN 46202-2896.
Assessing What Really Matters in the Major and the Degree: A British Perspective on Moves to Better Practice in Assessment

Chris Rust

This article is a summary of the measures taken recently by Oxford Brookes University in England to weave assessment throughout the curriculum in a coordinated and consistent way as an essential part of the learning process.

Assessing the Major

Graduate Outcomes and Profiles. With regard to assessment of the major, Oxford Brookes adopted from Alverno College in Milwaukee the requirement of defining graduate outcomes for each subject major. We call this requirement a graduate profile: a statement that makes explicit what the graduate in a particular subject major should be able to do in terms of a set of outcomes. For example, one graduate outcome for a history major at Oxford Brookes is the ability to provide causal analysis of the particular events or issues that have shaped modern British and European societies.

The development of graduate profiles has had the great benefit of getting faculty to talk to one another about what they are trying to achieve in teaching their respective subjects (and sometimes discovering that they do not actually agree on goals). This process has also encouraged faculty to consider what is distinctive about their disciplines and the ways they are taught at Oxford Brookes compared with other universities. In addition, the profiles are also of very real benefit to students because they make the expectations of the majors clear. The profiles also can be seen to constitute an important philosophical change for an institution in moving from a teaching to a learning paradigm. As Barr and Tagg (1995, p. 21) argued: “In the Learning Paradigm, then, a college degree would represent not time spent and credit hours dutifully accumulated, but would certify that the student had demonstrably attained specified knowledge and skills.”

In addition to graduate outcomes, Oxford Brookes also requires that each individual course have clearly defined learning outcomes.

Definition of Learning Outcomes for Courses. In addition to graduate outcomes, Oxford Brookes University also requires that each individual course have clearly defined learning outcomes. This requirement has two major benefits. First, it is possible to see whether the necessary “building blocks” are available in the various courses to enable students to finish with the desired graduate outcomes. Second, these learning outcomes also help us see whether when we assess students we are really assessing what we want to assess, that is, what we want students to learn. Otherwise, as Angelo (1996, p. 4) argued, “we [now] continue to assess student learning—and to graduate and certify students—much as we did in 1986, 1966, or 1946, without meaningful reference to what students should demonstrably know and be able to do.” For this reason, the past few years have seen many universities in the United Kingdom, including Oxford Brookes, require all courses to have clearly defined learning outcomes and assessment methods which explicitly and demonstrably assess the specified outcomes.

Audits of Skills and Knowledge. A third requirement of faculty that has been introduced at Oxford Brookes is for each subject to carry out an internal audit of courses and to construct a matrix showing where particular knowledge and skills are covered. Faculty are further required to identify whether the skills are taught, practiced, or assessed, or some combination thereof. This has had two benefits. Faculty have been able to see for the first time if the various courses are providing all that is necessary to lead to the graduate profile intended. They can see whether some knowledge and skills are actually not being taught at all, or can be avoided if students make certain choices. They can see if there is unnecessary repetition, or if some things are under- or (more usually) overassessed. Second, because the audit...
matrix is explicit, students can see what they are supposed to be learning and where, and how this knowledge fits into the bigger picture. This enables them to make more-informed course choices.

There is currently an active debate in the United Kingdom about graduate standards and the nature of "graduateness," including questions about whether there are core generic skills that all graduates should possess.

Marking Grids. Another development at Oxford Brookes is the growing use in some subjects of criterion-referenced marking grids in the assessment of students' work to try to standardize course grading (see Morgan, Spouse, and Rust, 1996). The grids identify all the criteria likely to be used in classroom assessments and then, for each one, define an A, B +, B, C, and Refer/Fail level grade.

When devising their assessment tasks for particular courses, faculty choose from this grid the criteria that are appropriate and thereby create a specific "mini-grid" for each task. Totally open to faculty choice is the question of which criteria from the grid are appropriate and relevant; not open to choice or amendment is the definition of each grade for each criterion. These marking grids are also issued to the students so that they understand from the outset the criteria being used.

Assessing the Degree

Core Skills. When it comes to the degree as a whole, there has been currently an active debate in the United Kingdom about graduate standards and the nature of "graduateness," including questions about whether there are core generic skills that all graduates should possess. These are not new questions; and whether called "life skills," "transferable skills," or, in the case of Alverno, "abilities," the lists of these skills look very similar. Using the label "transferable skills," Oxford Brookes identified the following five: self-management, learning skills, communication, teamwork, and problem solving. And it decided that all subjects should be required to identify how and where these skills are developed and assessed. These transferable skills are therefore included along with the disciplinary knowledge and skills in the audits of courses already mentioned.

Review and Validation. These changes have been possible on an institutional scale for a number of reasons. The university was successful in winning a grant from the U.K. government to give more focus to employability and the development of skills, which provided a financial incentive. At the same time, as part of a growing emphasis on quality assurance in the United Kingdom, teaching and learning quality in British universities is now periodically examined by outside assessors and their reports are published. This has provided a definite incentive to ensure best practices. But perhaps the major vehicle that has enabled Oxford Brookes to implement all of these changes is the university's internal course review and validation procedure, through which every course has initially to pass, and subsequently to be periodically reviewed, in order to be allowed to operate. It is a system of peer review that validates courses against universitywide criteria. By making appropriate demands in these criteria, the procedure guaranteed that the changes described above would be implemented.

Although effecting the scale of institutional change achieved at Oxford Brookes may require very special circumstances, many of the individual strategies can be introduced, albeit in a limited way, by individual faculty if they are sufficiently committed. Even more should be possible for like-minded groups of faculty working together, and certainly whole departments should be able to achieve a great deal.

However, for significant development to take place overall, frameworks are needed, which probably are not possible without the imposition of strong institutional, regional, or even national requirements.

References


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Rust, C. (2001)

_A briefing on assessment of large groups_

LTSN Generic Centre Assessment Series, No. 12, York, LTSN
A Briefing on Assessment of Large Groups

Chris Rust
The Learning and Teaching Support Network Generic Centre

The Learning and Teaching Support Network (LTSN) is a network of 24 Subject Centres, based in higher education institutions throughout the UK, and a Generic Centre, based in York, offering generic information and expertise on learning and teaching issues that cross subject boundaries. It aims to promote high quality learning and teaching through the development and transfer of good practice in all subject disciplines, and to provide a 'one-stop shop' of learning and teaching resources for the HE community.

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- work in partnership to identify and respond to key priorities within the HE community;
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Welcome to the Learning and Teaching Support Network Generic Centre's series of Assessment Guides and Briefings. They aim to provide a series of overviews of important issues and practices in the field of assessment for the higher education community.

The Assessment Guides are intended for colleagues with particular roles and for students, as their titles suggest. The Briefings are primarily intended for lecturers and other staff involved in supporting learning.

The Assessment Series is a snapshot of a field in which development is likely to be rapid, and will be supplemented by specific case studies produced by the LTSN Subject Centres.

The series was developed by Brenda Smith and Richard Blackwell of the LTSN Generic Centre with the support of Professor Mantz Yorke. Experts in the field were commissioned for each title to ensure that the series would be authoritative. Authors were invited to approach the issue in their own way and no attempt was made to impose a uniform template.

The series editors are grateful to colleagues in LTSN Subject Centres and other senior colleagues who refereed the series, and of course to the authors for enabling its publication.

We hope that you will enjoy the Assessment Series and find it interesting and thought-provoking. We welcome your feedback and any suggestions you may have for future work in the area of assessment.

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Summary

This paper identifies the major assessment issues of larger classes - that it is likely to be done less well and/or less often - and the resulting negative effects on student learning and achievement. It argues that assessment strategies should be a major part of learning and teaching strategies at both institutional and departmental level, and offers a number of specific strategic responses which might be used to overcome the above issues.

It further argues that disciplines need to be prepared to look for solutions beyond their traditional cultures and practices, and then offers detailed examples of possible solutions grouped under the following six headings:

1. Front-ending
2. Do it in class
3. Self- and peer-assessment
4. Group assessment
5. Mechanise the assessment
6. Strategic reduction

Finally the paper describes five individual case studies from a range of disciplines which exemplify the implementation of some of the above strategies.
Issues

According to Universities UK (formerly the Committee of Vice-Chancellors and Principals) in their report "New Directions for Higher Education Funding, reported in the Guardian newspaper, "Since 1989 resources per student have fallen by 38%, following a decrease of 20% between 1976 and 1989. Staff-student ratios declined to an average of 1:17 (1:23 if funding for research which is included in the average unit of funding is excluded) (Macleod, 2001).

As class sizes go up, assuming the staffing remains the same and if the same assessment methods continue to be used, one of two things is likely to happen with regard to assessment, and in both cases the effect on students is detrimental. It is either likely to be done less well - less rigorously and with less and more superficial feedback to the student - and to take longer to be returned. Or, the amount of assessment on the course will be reduced - and it is likely to be the formative assessment that is reduced (or even done away with completely) first. In both cases, tutors are less likely to be available and subsequently there is less opportunity for contact with the tutor to discuss their comments after the work has been assessed.

In both cases, a major casualty is the amount and quality of feedback given to the student, with predictable negative effects:

- With less detailed feedback, it is much harder for students to see what their strengths and weaknesses are and how they can improve in the future. We can therefore expect a decline in future performance, and if this is repeated this can lead to a continuing spiral of poorer performance.
- With longer gaps between the submission of work and the receipt of feedback, students are less likely to pay attention to or be interested in the feedback, even if it is of a reasonable quality, with effects on future performance similar to that described above.
- With less opportunity to discuss and clarify tutor comments, students are unlikely to improve their performance.
- And with fewer formative assessment opportunities, the summative piece of work receiving the feedback is likely to have been done less well in the first place.

Possibly even more important than the issue of feedback, however, is the potentially detrimental effect of less assessment. It has long been recognised that probably the biggest influence on a student's approach to their studies is the assessment regime of the course (Rowntree, 1977; Ramsden, 1992; Gibbs, 1992; Brown, 1997; et al):

- If less of a course is sampled through assessment, students may very easily become selectively negligent, only studying in depth those parts they think/know will be assessed.
If with increased class size there is a reduction in personal tutor/student contact, assessment is even more likely to become the prime motivator for many students. If there is also less assessment, motivation may drop and only pick up sporadically when the next assignment is set.

Everything said so far has been on the assumption that staffing has not increased to match the increased number of students but it should be noted that even if staffing has increased this can also bring its own set of problems. If the number of assessors for a given piece of work increases this will inevitably increase the problems of maintaining marker reliability and consistency.

The creative solutions and case studies that follow (see 5 and 6 below) all suggest possible ways of addressing one or more of these problems.

Given the acknowledged importance of assessment in shaping the students’ approaches to learning (as already mentioned above), and the increased importance put on assessment by the QAA’s new quality framework, assessment should be a major consideration in any learning and teaching strategy.

With regard to assessing larger groups, the important thing to recognise is that there may well be strategic solutions which can only be implemented at departmental or even institutional level, and which are beyond the control of individual tutors. One example of this is the university that has made it a strategic policy to have as much first year assessment as possible transferred to computer-marked objective tests in order to release staff time for a greater focus on research activity. They have consequently put in the necessary expenditure on hardware, software, and supporting infrastructure to make this possible.

A key area at institutional level which may well benefit from review is the university’s examination and assessment regulations, and strategic amendments to these regulations might well be possible which can reduce the assessment burden on tutors. For example, you can:

- Revise regulations devised for an earlier time (e.g. there should be two three-hour unseen exams; all work should be double-marked; essays should be 5,000 words) to ensure they do not lead to inappropriate and unworkable assessment arrangements.
Streamline arrangements for re-sits which often do not need to be as elaborate as the first assessment because they only need to demonstrate threshold competence and are usually not graded.

Allow for the use of 'course requirements'. If you want students to undertake work but do not have the time to mark it yourself, there is every chance they will not do it. Make sure the regulations allow you to make such work a 'course requirement' and a pre-requisite for sitting the exam.

It may be possible to introduce some strategies at a department level without changes to the university's regulations:

- Set clear deadlines for work to be submitted and do not accept late submissions which would extend the period you have set aside for marking.
- Set strict word limits and refuse to read material beyond these limits. It is good practice anyway for students to learn to work to word limits and to time.
- Require all work to be handed in to administrative staff or technicians and insist that it is checked off when submitted. Keep as far away from the administration of handling assessed work as possible.
- Require all work to be word-processed (providing students have sufficient access to computers and to training, and students with genuine disabilities are not unfairly penalised).

The easy and obvious solution to the problem of assessing larger classes is to reduce the amount of assessment but if this is done in an ad hoc and piecemeal way it may have very damaging consequences on student learning as has already been explained. But if the assessment for the complete student programme is reviewed it may well be possible to identify aspects of the course which are over-assessed, and assessments which can be changed, reduced or even done away with, with no harmful effect at all.

A more limited example of a specific departmental strategy is the Biology department who were concerned that on modules with large student numbers it was not possible for the module tutor to find sufficient time for individual student tutorials to discuss the feedback given after the assessed work had been returned. Their strategic solution to this was to introduce a department-wide policy that all first year assessed work (the year where most large classes are found) is to be collected from the student's personal tutor rather than the module tutor. This has not only had the effect of sharing the load across the department but has also helped to strengthen the personal tutor system and personal tutor/student relationship.
Disciplinary differences

When it comes to assessing larger groups it is possible that the problems and issues may vary in different disciplines, and therefore so too may the appropriateness of possible solutions. For a start, what is considered a large group may vary considerably from one discipline to another. In art and design, for example, where traditionally great emphasis has been put on ongoing feedback through the one-to-one tutorial in the design studio even a small increase in numbers can have a dramatic effect.

The most important difference, however, is probably that different disciplines have different assessment cultures and traditions. Some discursive disciplines may be almost totally reliant on the use of academic essays, some under exam conditions, for example, while in others essays may not be used at all. If creative solutions are to be found to the problems described above lecturers need to ask some fundamental questions about their practices. Do they genuinely need to be as they are because of the fundamental nature of the discipline and what is being assessed, or whether the differences are simply historical and/or cultural (see Gibbs, 2000). Solutions may well be found by looking beyond disciplinary traditions and lecturers need to be open to the possibilities of borrowing and amending practices from other disciplines. While in some disciplines it may be easier to create objective tests and/or model answers, for example, no such possible solution should be ruled out blindly without serious consideration simply because that is not the way it has been done in this discipline in the past.
Creative solutions and examples

The possible solutions detailed below have been grouped into the following six strategies:

1. Front-ending
2. Do it in class
3. Self- and peer-assessment
4. Group assessment
5. Mechanise the assessment
6. Strategic reduction

It should be noted however that these strategies are not mutually exclusive but can overlap and be combined.

**Front ending**

The basic idea of this strategy is that by putting in an increased effort at the beginning in setting up the students for the work they are going to do, the work submitted can be improved. Therefore the time needed to mark it reduced (as well as time being saved in less requests for tutorial guidance).

Ways of doing this essentially fall into two categories:

i. Full briefing instructions/checklists

This involves anticipating everything the student may do wrong or misunderstand about the content and purpose of the task. Depending on the subject and the task, this may take the form of detailed briefing instructions (see example below) while in other contexts something more akin to a checklist might be more appropriate.

**Writing up the method section**

If you are writing up an experiment or study begin the method section by describing the general features of the experimental approach, stating the independent and dependant variables and the units of measurement. The independent variable is that which is manipulated by the experimenter, whereas the dependant variable is that which is measured. If you are reporting a study where there are neither independent nor dependant variables, a brief description of the design of the study should be included. This section is then broken down under several sub-headings:

(a) Subjects. State the total number of the subjects used in the study. Then give the number of females and males. Where possible give the age range, average age and the source of the sample. For example, 'The sample consisted of 80 University students enrolled on The Individual and Society module. There were 35 males and 45 females.'

In reporting psychological findings it is important to specify your subjects as precisely as possible since the individual differences in performance are likely to produce important differences in results.

(b) Materials. Description and/or diagrams of materials used and apparatus arrangements. In most cases it is necessary only to name the piece of apparatus used since descriptions are available elsewhere, e.g. stopwatch, Eysenck Personality Inventory. Copies of questionnaires may be included in the appendix to your report, although this is not strictly necessary. If, however, the equipment or the questionnaire has been designed specially for the study, a full description is required.

(c) Procedure. Detailed descriptions of what happened during the experiment or study.
As an example of detailed briefing instructions, here is just part of five pages of instructions on how to write up a practical report for a psychology laboratory course with about 100 students:

Report verbatim the instructions which were given to the subjects. The guiding description here is that your description of procedure should be sufficiently detailed to allow another scientist to repeat your experiment in exactly the same way as you performed it. Discuss the provisions made to isolate and control all the relevant variables which may have influenced the results, e.g. practice, fatigue. This section should conclude with an outline of how the scores were collected and how the results were scored or coded.

ii. Clarification of the assessment criteria

There is disappointing evidence (Price & Rust, 1999; O'Donovan, Price & Rust, 2001) that while giving the students the assessment criteria which are to be used when the task is set is certainly better than not doing so, it may not actually make much significant difference to the subsequent quality of the work. For this to happen, what is needed is for the students to actively engage with the criteria in some way. At a bare minimum, this might involve the tutor going through the criteria, discussing them with the students and explaining what they mean. Far better though (Nelson, 1994; Price, O'Donovan & Rust, in press) is to get the students using them in some kind of marking exercise, either using samples of work from a previous year's cohort (suitably anonymised and with the authors' permission) or with specially written pieces written by the tutor for the purpose. Through trying to use the criteria themselves and engaging with the work of another the students gain a much greater insight in to what the key words in the criteria actually mean, and therefore what is expected of them. This need only take up the time of one seminar session and in terms of the outcomes will be time very well spent.

Doing it in class

This strategy requires the tutor to look for aspects of assessment that could be done within the allocated class time rather than outside. The possible types of activity can fall into at least three different categories:

i. Giving general rather than individual feedback

If the problem is finding time to give individual feedback to each student on formative work that they have undertaken, one solution may be to take time in class to give general feedback to the whole class, highlighting things which had been done well or badly, common mistakes and misapprehensions, etc. This strategy can be combined with self and/or peer assessment (see below) in that after the general feedback has been given the students can have time (or encouraged to do so after the class) to consider which aspects of that feedback apply to their piece of work and/or that of one or more of their peers.
ii. Setting assignments which can be marked in class

Instead of written assignments, students can be set tasks which lead to their findings being presented in class, either as oral presentations or as posters. As well as saving the tutor's marking time these methods have the additional advantages that they help the students to develop a wider range of communication skills, allow their work to be shared with the rest of the class, and enable them to receive immediate feedback. Peer assessment can also be used (see below) with the possible positive benefits identified above with regard to marking exercises.

iii. Setting assignments which can be undertaken in class

A good example of this is the 'Instant Lab report' (Gibbs, Habeshaw and Habeshaw 1993). Instead of students writing up long lab reports after the lab which can take a long time to mark and enable the student to hide many of their shortcomings, they write a much briefer report in the lab itself and hand it in as they leave. In some cases it may even be possible to mark it there and then before they leave.

Self- and peer-assessment

Students can perform a variety of assessment tasks in ways, which both save the tutor's time and bring educational benefits, especially the development of their own judgement skills.

i. Self-assessment

This could be as simple as going through a checklist (see below, Fig 1) and making it a requirement that the completed checklist must be submitted with the work in order for the work to be marked. Unless the work is literally being done at the last minute, it is a particularly dim student who ticks title missing, for example, rather than adding a title. In requiring students to review their work in this way it can ensure the prior correction of many basic errors and omissions and thus greatly reduce marking time enabling the tutor to focus on the far more important strengths and weaknesses of the work.

An alternative to a detailed checklist is to simply have a small number of more open-ended titles which the students is required to respond to such as:

- strengths of the piece of work
- weaknesses of this piece of work
- how this essay could be improved
- the grade it deserves is...
- why this lab report deserves better than a ... grade
- what I'd have to do to turn this into a ... grade project
- what I'll pay attention to in my next design is...
- what I'd especially like your comments on
ii. Peer-assessment

Possibly easier than assessing one’s own work, especially to start with, is to read and comment on the work of others. Students should therefore be encouraged to get into the habit of getting informal feedback from each other, and if instituted formally this may be a very effective way of ensuring the students get feedback which the tutor does not have time to give. It can also have very definite educational benefits.

An example of this is a course in Geography that originally required the students to write two essays, one towards the beginning of the course and one near the end. The tutor became increasingly despondent that despite all the efforts spent marking and writing comments on the first essay invariably there was little improvement in the second and as student numbers were rapidly rising it was becoming increasingly difficult to find the time to maintain the quality of the feedback given.

Instead of two essays the course now requires only one, which is written in two stages. In the first stage, the students write a first draft of their essay by a given date. In a seminar session, they are then paired up and each pair reads and gives detailed feedback on the other’s piece of work. In the light of this feedback, the students then redraft their essays. When the essay is finally submitted it is accompanied by an account of how the feedback has been used, e.g. “I've included more sources because the first draft was criticised for using only two. I've kept the introduction the same even though it was criticised as unclear because I don’t agree...” etc.

As a result of this change the tutor has halved his marking load. It is true that only one topic is now assessed rather than two as before but the tutor believes that educationally this is more than compensated for by the following benefits:

- it develops the students critical faculties
- significantly better work is produced
- it is more like the 'real world' - good writing involves redrafting in the light of criticism
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Fig 1. Psychology Practical Comment Sheet

Name: ____________________________ Date Submitted: ____________________________
Practical: __________________________ Mark: ____________________________
Marker: ____________________________

Checklist of Comments

Title

() Missing () Correct () Incorrect () Vague () Too short () Too long
() Incorrect but adequate

Abstract

() Needs the heading “Abstract” or “Summary” () Section missing () Too short
() Too long (max. 200 words) () Unclear
() Wrongly placed, it should be at the beginning
() Omits hypothesis / aim – design procedure results – conclusion
() Material which is here belongs elsewhere, e.g.
() Clear () Succinct

Introduction

() Section missing () Heading missing
() Too short (min. 300 words) () About right length () Too long (max. 1,000 words)
() Follows handout too closely () Rambling and unfocussed
() Does not incorporate a statement of the hypothesis
() Rationale for study missing
() Does not review previous empirical findings () Omits relevant readings
() Does not consider appropriate theories
() Some material included here belongs elsewhere, e.g.
() Inappropriate use of references () Well argued
() Shows set reading has been done

Method

() The entire section is missing () Should be sub-divided as below:
Subjects
() Number? () Groups? () Sex? () Age? () Naive to purposes of study
Materials/Apparatus
() Section missing () Not enough detail () Too much detail () Needs diagram
Design
() Section missing () Control(s)? () Balancing? () Randomisation?
Procedure
() Section missing () Instructions to subject? () Details missing
() Too detailed () Whole section clear and detailed
Results
Tables
() Missing () Summary table needed

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( ) Calculations / Raw data go in Appendix
( ) No numbers / titles on tables (e.g. “Table 1: Mean errors for each age group”)
( ) Untidy ( ) Neat

Figures/Graphs
( ) Missing ( ) Axes need labelling ( ) Key to symbols? ( ) Wrong items plotted
( ) Bad scaling on axes ( ) No Numbers / titles on figures (e.g. “Figure 1: Graph of”)
( ) Untidy ( ) Neat

Description of Data
( ) Missing ( ) Too short ( ) Good length ( ) Put some of this in Discussion

Statistics
( ) You have not done all the tests described in class
( ) Link this with a table / result
( ) Arithmetic errors ( ) Tables / figures neat and well presented
( ) Verbal description clear – precise

Discussion
( ) Missing ( ) Little evidence that you have done the required reading
( ) Too short ( ) Too long
( ) Mention problems with procedure / design
( ) Does not pick up points raised in the introduction
( ) Conclusion missing ( ) Your conclusion is not justified from the data presented
( ) Material has been included here which would go better in the introduction
( ) Satisfactory ( ) Well organised ( ) Well organised and well argued
( ) Contains some novel and interesting opinions

Reference
( ) Some references are incomplete
Minimum information is:
(a) first author (b) title of article or book (c) title of journal (if relevant)
(d) volume number
(e) year of publication (f) publisher (books only)
( ) Some references made in report are not detailed here
( ) Some references are inaccurate
( ) Section missing ( ) Satisfactory

General
( ) Poor ( ) Fair ( ) Good ( ) Very Good ( ) Excellent ( ) Too brief overall
( ) Too hurriedly written ( ) Report not set out in formal order ( ) Poor spelling
( ) Poor grammar ( ) Untidy ( ) Difficult to follow your arguments:
  muddled, disorganised
( ) Too long (you need to demonstrate skill in condensing your argument)
( ) Overall presentation above average
( ) Demonstrates reading beyond set references and extra marks have been
  awarded for this
iii. Peer marking using model answers

This may not be possible in all disciplines but if it is possible to have model answers for work that is set this strategy can have a number of benefits.

One example is an engineering course where students who did badly in the exam were known to be failing because they needed more practice in working through numerical problems. There was no way, however, that the staff could contemplate more marking and if it wasn’t assessed how could they get the students to seriously undertake the practice problems?

The solution they adopted was to set the students problems on a regular basis to solve in their own time, and to allow twenty minutes at the start of certain lectures for these to be marked. This is done by rows of students swapping work; the lecturer then leads them through a model solution. Although 170+ students are involved they have become increasingly efficient at doing this and needed less time - only 7 minutes on one occasion. It was made a course requirement that all students had to have attempted 50 problems over the term (in order to be eligible to sit the end of term exam) but marks did not count. It would therefore have been possible for students to only make a perfunctory attempt at each problem and get them all wrong and still be able to sit the exam. But this did not happen. The students did take the problems seriously, presumably because they did not know which of their class mates would be marking their work and they did not want to be ‘shown up’.

And the performance in the exam has improved staggeringly.

This is because not only are they getting increased practice in undertaking problems, and the associated feedback, but they are also benefiting from:
- seeing the preferred solution, with the weighting of an examination marking scheme explained
- seeing the variety of approaches taken by their peers
- having to judge the degree to which the work of their peers does or doesn’t meet the requirements of the marking scheme

### Assess groups

If instead of individual pieces of work students are put into groups to collaboratively produce one product between them it is easy to see that the marking burden for the tutor would be significantly reduced. In addition, further savings may result from less time needed for tutorial support (group tutorials rather than individual) and in some cases fewer placement visits being necessary. There is also the strong educational justification that collaborative skills and the necessary interpersonal skills for group working are high on the list of general ‘life’ skills which we should be developing.

The major problem of course is that group members may not contribute equally, so how are they to be rewarded fairly? There is probably no easy solution to this but there is a range of possible strategies which may go at least some way to addressing the problem:
Assessment: A Briefing on Assessment of Large Groups

i. Group mark

The simplest solution may be to accept that it is slightly unfair but to stick with giving everyone in a group the same group mark on the grounds that probably all forms of assessment disadvantage someone and averaged out over a range of different types of assessment there is a kind of over-arching fairness. The students, however, may not be convinced.

If such a strategy is to be adopted it may help to have clearly understood mechanisms in place for how groups can deal with backsliding members. An example of this is a Business course where if the rest of the group can make a satisfactory case to the tutor that a group member is not pulling their weight a 'yellow card' is issued. This has a number of ramifications:

- if they mend their ways by a certain date the card can be rescinded
- if the card is not rescinded, the individual will receive a 5% penalty in their mark i.e. 5% less than the group mark
- if they continue to significantly underperform a further case can be made to the tutor to issue a red card which sacks them from the group and means they have to produce an individual piece of work

Since the introduction of this scheme, a red card has never been used, no one has ever complained that the system is unfair and most yellow cards (and there have not been that many) have ultimately been rescinded.

ii. Individual contracts

In some cases, if the group task has a number of distinct components, it may be possible for each of the students in the group to have responsibilities - in effect, an individual contract. When marking the product each individual can then be assessed separately on the basis of the degree to which they have met their contracted outcomes.

iii. Divided group mark

This strategy is based on the premise that it is the group members themselves who know best about the relative contributions of individual members so they should be responsible for allocating individual marks. If you have a group of four and the assessed product which they have produced is allocated 50% then you simply give the group 4x50=200 marks to divide between them. For this approach to work you will need to have a number of explicit ground rules:

- the students should be clear about this marking system before starting the task
- the dividing of the marks should be justified in detail against the assessment criteria for the task
- no two students may have the same mark (to prevent the group effectively opting out by deciding to give everyone the same)
- no individual mark may be more than plus or minus 10% from the group mark (the amount is clearly your choice but the underlying idea is that to an extent they should take collective responsibility for the group's product).
iv. Peer-assessment of contributions

This strategy is based on the same premise as the divided group mark - that the group members are in the best position to know about the contributions of individual members - but gives them power over less marks. Instead of giving them all the marks to allocate, there would be a common mark given to each of them for the quality of the group's assessed product but this would be out of say 80%. They would each then assess each of the other group members out of the remaining 20%, against already known criteria, and these marks are then combined and averaged out for each individual, making an individual component mark to be added to the group mark.

v. Viva

In a comparatively short time, it is possible to gain insight into the relative contributions of individual group members through a group viva through questions like, "Whose idea was this?" and "What was your particular contribution to this section?". This can then lead to an individual component mark awarded by you, to be added to a common group mark for the group product. Obviously vivas take time, but marking one substantial assignment and conducting a series of brief vivas can still be quicker than marking individual assignments.

vi. Project exam

In this example the fairness mechanism is deferred; the members of the group all get the same group mark for the assessed project. But they all know from the start that in the module exam there will be one or more questions specifically related to the project. Questions like "Explain the concept of... with specific reference to your project" or "What methods can be used to...? Select one of these methods to explain in detail, using your group project as an example." (Gibbs, G., Habeshaw, S. & Habeshaw, T., 1992) will be quite difficult, if not impossible, for individuals who played little part in the project.

Mechanise the assessment

i. Statement banks

It is conventional for lecturers to write comments in the margins of assignments. Speed of marking and restricted space often means that these comments are clipped and ungrammatical. Need more explanation! Wiggly line, wiggly line, relevance? Such comments can seem curt and overly critical from the student's perspective.

A number of courses in a humanities department have now converted to statement-banks. The comments available in a statement-bank can be more supportive and detailed than lecturer comments. For instance, one such bank lists 34 comments for a lecturer to choose from, including quick comments: 'This is great!!! Do more of this!' and detailed comments: 'This introduction/conclusion/section/phrase feels pasted on and disconnected from the rest of the essay.' Do if expanding on the ideas in the section before or after works better. Also, ask if this section really relates to the essay or if it is a personal comment about the idea you have just presented. If this is unclear, ask me about it.'

Examples of overview comments include: 'I love your writing style and diction (word choice)' 'I think the tone of this essay makes it less effective' or 'The language of this section/essay is not appropriate for the audience/register/subject, (too informal or too formal).'
Statement-banks can be introduced at any point along a continuum from low-tech to hi-tech. For instance, at the lower level, students may be given a detailed list of numbered statements and the lecturer then writes the relevant number/s in the margin. This can be a lot quicker and more positive to students than the traditional way of providing comments. At the hi-tech level, statements can be “loaded” on to a PC, lecturers can punch in numbers and the computer can replace numbers with the appropriate comments and print them out.

ii. Feedback sheets

Feedback sheets (sometimes called assignment attachment sheets) enable tutors to give students feedback quickly simply by ticking boxes to indicate how well the student did against each of the assessment criteria, instead of writing lengthy sentences. Students appreciate such forms (see example Fig 2 below) because they are clear and easy to interpret, and because the feedback is explicitly related to the criteria. They can also be used for prior self-assessment by the student simply by making it a requirement for the student to complete the sheet and to hand it in with the work or the work will not be marked. In this case if you tick the same box as the student against an individual criterion does anything else really need to be said? If the student has ticked a different box then that may highlight a need for you to add some explanatory sentence. This can help you to focus your feedback and the time you spend giving it to where it is needed and will be most useful.

Fig 2. Essay Marking Criteria

<table>
<thead>
<tr>
<th>Knowledge</th>
<th>super/ fit</th>
<th>no knowledge or not used</th>
</tr>
</thead>
<tbody>
<tr>
<td>Text</td>
<td>deep, thorough detailed</td>
<td>no knowledge or not used</td>
</tr>
<tr>
<td>Author</td>
<td>wide knowledge used in analysis</td>
<td>no knowledge or not used</td>
</tr>
<tr>
<td>Genre</td>
<td>wide knowledge used in analysis</td>
<td>no knowledge or not used</td>
</tr>
<tr>
<td>Historical and social context</td>
<td>wide knowledge used in analysis</td>
<td>no knowledge or not used</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Essay</th>
<th>confused list</th>
<th>incorrect, arbitrary use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Structure</td>
<td>clear, logical structure</td>
<td>few, irrelevant</td>
</tr>
<tr>
<td>Quotations</td>
<td>correct, purposeful use properly referenced</td>
<td>improperly referenced</td>
</tr>
<tr>
<td>Other sources</td>
<td>wide range, relevant properly referenced</td>
<td>many errors</td>
</tr>
<tr>
<td>Grammar, spelling</td>
<td>correct</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Personal</th>
<th>little response</th>
<th>no viewpoint</th>
<th>predictable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Response to text</td>
<td>vivid, personal</td>
<td>no viewpoint</td>
<td>predictable</td>
</tr>
<tr>
<td>Viewpoint</td>
<td>clearly expressed</td>
<td>no viewpoint</td>
<td>predictable</td>
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<tr>
<td>Creativity</td>
<td>imaginative, surprising</td>
<td>no viewpoint</td>
<td>predictable</td>
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<th>Critical theory</th>
<th>little grasp</th>
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<td>Understanding</td>
<td>clear grasp</td>
<td>little or inappropriate use</td>
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<tr>
<td>Use of methods</td>
<td>wide range appropriate use</td>
<td>little or inappropriate use</td>
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iii. Objective tests

Objective tests - multiple-choice questions (MCQs), true/false, insert words or data - offer the possibility of considerable time saving because they can be marked quickly and easily, and can even be marked by machines. Some lecturers may be put off the idea of objective testing because they think they can only test the more superficial learning outcomes and factual knowledge. However, it is possible to devise objective tests that involve analysis, computation, interpretation and understanding. You also need to ask yourself what the purpose is behind the particular assessment task. If your reason for including an end of module exam is to ensure that the students read widely across the subject, then a multiple choice exam would serve that purpose; you just might not want to give it that high a percentage of the total module marks. If you want the assessment to motivate and help pace the students' studies, and to give them feedback on their learning, but you have not got the time to mark weekly sets of questions then computer-based MCQ tests available on the course's website might be the ideal solution.

The major problem with MCQs and other forms of objective tests is the time it takes to write good questions. Good detailed advice on this, and the various possible ways of using them with computers can be found at the Computer-aided Assessment Centre website: http://www.caacentre.ac.uk

Another possible solution is to see if you can find a textbook, especially a US textbook, that covers your topic area which may have banks of MCQs already written that come with the book. It would also be worth contacting the relevant LTSN Subject Centre for your discipline to see if they are storing any banks of questions (for contact details see: http://www.ltsn.ac.uk).

Strategic reduction

If reductions are made strategically, there should be no detrimental effect on student learning. Reduction could be in the number of assessments themselves and/or in the amount of time spent giving feedback.

i. Reducing assessment

Examples of this would include:

- Identify and reduce repetitive assessment. It is not clear that writing lab reports every week for example is necessary either for students to learn from the lab work or to develop report writing skills. Indeed some such assignments have become so repetitive that they serve few useful functions.

- Use more varied assessment methods. Essays may be appropriate for some educational goals but can be expensive in staff marking time. A mixture of fewer essays backed up by objective tests might ensure both development of writing skills and reasoning skills, and the desired broad coverage of the material.
Assessment: A Briefing on Assessment of Large Groups

- Distinguish between courses with different goals. Some courses have aims, which may be best assessed through short tests rather than long essays or reports. Accept that different courses should have unique assessment patterns rather than all courses being assessed with the same type and volume of assignments. Other assessment strategies worth considering which might be both more appropriate to certain learning outcomes and shorter than some traditional methods might include: a briefing paper, an article, a book review, an annotated bibliography, a draft research bid, an A-Z, an encyclopaedia entry, a response to a client’s question or a poster.

- Review the need for extensive summative assessment in the first year where most assessment is effectively pass/fail (in the sense of decisions concerning progression to the second year, rather than marks counting towards the final degree) and where almost all students pass regardless of the assessment system used.

- Assess only selected pieces of student work from a greater portfolio of work they have produced, possibly because it was a course requirement to do so.

ii. Reducing time spent on feedback

Examples of this, many of which we have covered already, would include:

- Give general feedback to the whole class rather than individual feedback
- Use feedback forms
- Use students
- Use statement banks
- Use computer-based tests
- Give focused feedback on only one different criterion each time. For example, in a series of English literature essays, for one you might focus your detailed knowledge of the author and the social and historical context, and for the next essay you might focus your feedback on the use of critical theory, and so on.

- Use audiotape to comment on students’ work. While reducing the time you spend this may actually increase rather than reduce the amount of feedback given. As you read, speak your comments into a tape recorder. Do not write any down, but just indicate by numbers on the text (1, 2, 3…) to which specific sections your comments refer. Students frequently say that they get far more information from taped comments, including the tone of one’s voice, than they do from written comments, and they also do not have to try to cope with some of our illegible writing. To make this system easy to operate students can be required to hand in a blank tape with their assignment.
Six case studies

Selected laboratory reports in Civil Engineering

In this case study marking time has been reduced to five per cent of what it was (through use of sampling assignments for feedback and marking, marking only part of an assignment, peer-assessment, self-assessment, model answers, and new course requirement).

A civil engineering department had a slow turnaround on the marking of regular practical reports, and a sense that this work was poorly focused. Students didn’t understand why they were putting so much time in. It was unclear what the marking was for. Staff reviewed the objectives of workshops on their lab-based courses and decided they were mainly interested in four things - analysing and interpreting data, written communication skills, experimental design and understanding key concepts. Students were told: ‘We want a portfolio from you at the end of the year that has at least 20 reports from the 25 practicals, and if you don’t submit 20 then you fail the course and you aren’t allowed to sit the exam.’

Students were also told that four reports would be pulled out at random. One would be assessed for communication skills, one for data handling, one for experimental design and one for understanding engineering concepts. Students didn’t know which would be assessed for what, so they had to pay attention to all four things every time. There was only one bit of marking and it was very focused marking so it was extremely quick. It wasn’t only that it was four reports out of 20, it was in fact only about 20 per cent of the four out of 20, so the marking time went down to about five per cent of what it was previously. (Obviously it matters where you sample from if students were improving during the course.)

The reports were date-stamped in the office and then put into the portfolio, so students couldn’t put anything in the portfolio that hadn’t been submitted on time. And they couldn’t change them afterwards. When the deadline was passed, the lecturer would give feedback on that lab, using model reports or peer-marking exercises or self-marking exercises or through general feedback comments having sampled some of the submitted reports. They used a variety of cheap methods for students to engage with the quality of their work and others’ work and think about standards. But they didn’t use lecturer marking.

In addition to this huge saving in tutor time they also found that it actually improved the quality of the students’ work. When they had had to submit 20+ reports all to be marked they knew that the marks for each only counted for a very small amount and therefore were prepared to be somewhat slapdash in their approach. Now only four count (and they do not know which four) they each contribute a significant percentage of marks so they now have to make sure that each report is of high quality.
Assessment: A Briefing on Assessment of Large Groups

Computer-based tests in Chemistry

This case study highlights how computer-based tests can provide students with regular feedback and help students to pace their learning over a module.

A large introduction to chemistry module had the problem that many students were only studying it because it was compulsory for a range of other courses and were students who had studied very little chemistry previously or had bad experiences in chemistry and would not have studied it from choice. A very big problem was the amount of maths in the course, which frightened many of these students. The response of many of these students was to do as little work as possible during the module until just before the exam which was far too late. The tutor knew all too well that what they needed was to work from the very beginning of the module, especially on the mathematical problems, and to hopefully get positive and reassuring feedback on that work to help build their confidence.

Unfortunately, the only way this could be achieved would be through regular assessed work and the numbers were too large for this to be possible if it required tutor marking.

The solution has been to create simple multiple-choice tests using freely available (to UK higher education) and simple to use software called the Castle Toolkit (see http://www.le.ac.uk/cc/ltg/castle/tools/). The tests are put on the course’s website each week for the students to do in their own time. There are no marks for these tests, no record is kept of who has taken them, and they can keep repeating them until they get them all right. So what incentive is there for the students to take these tests? Well they know from the beginning of the course that the end of module exam will include a section of MCQs and that half of these questions will have been selected from those questions used in the weekly tests. This seems to have been sufficient incentive to inspire most of the students to attempt the weekly tests and there has been a definite improvement in the end of module exam results.

Peer marking in Electrical Engineering

This case study highlights how tutor assessment can be significantly reduced through the use of self- and peer-marking of examinations using model answers, and just some tutor sampling.

Over 100 students in a third-year physics class assessed their own performance and a peer’s performance in a mid-term examination.

At the first class after the examination, students were given model answers, commentaries and a marking-schedule by the lecturer. Each student was allocated an anonymous examination paper, and set of model answers.

They were then required to fill in the space on the marking-sheet, saying where the student had departed from the model answers and awarding a score for each section (on a scale provided). Students returned the papers and marking-sheets the following week and received their own examination script.
They then applied the same procedure to their own paper without knowing what marks their peer gave the paper. The self- and peer-generated marks were then compared. If the range was less than 10% the student was awarded the self-assessment mark. Otherwise the paper was re-marked by a member of staff. In order to discourage students colluding with each other to fix marks, other papers were sampled at random and marked by staff. Students liked the system; staff reported time-savings, even allowing for extra time spent on preparing model answers and organising the movement of papers.

**Strategic reduction of summative assessment in Education**

This case study involves an education course which has managed to greatly reduce its summative assessment by strategically focusing the assessment of specific learning outcomes, overlapping assessment to more than one course, and use of self- and peer-assessment to provide feedback on student progress.

An education course has changed from a very expensive assessment system to one of the leanest systems seen anywhere. In the old system, students produced volumes of paper which lecturers ploughed through, but there was almost no assurance of standards. They couldn’t tell whether the students were competent or not. You could tell that students were busy but not that they were competent. Tasks were too big and complex, and feedback came too late.

They didn’t have any exams - it was all coursework. They have now agreed to have an exam - except that they call exams ‘time-constrained tasks’. The exam tasks simulate - or in some cases are identical to - coursework tasks. For example, in the exam they will be given class records of pupils’ performance in English in the national curriculum across a year. The data consists of one side of A4 plus a page of comments about pupils, and there will be a questions like ‘Comment on the adequacy of the record-keeping system of the teacher’ and ‘Comment on the adequacy of the teacher’s plan to cope with individual differences within the class with reference to the national curriculum, what you know about the teaching of English, what you know about the record-system.’

Hence, the exam pulls in things that are on the competency list. Students would know to expect a question about record-keeping where they would have to look at some real records. They’d know there would be a question about lesson planning and that they would be given some actual lesson plans. The only way of preparing was to look at record-keeping systems and make sense of them, and look at lesson plans and make sense of them. The ground rule is that students cannot be confronted in the exam with a task that they haven’t tackled in a formative way during the year.
Assessment: A Briefing on Assessment of Large Groups

During the year teachers are encouraged to use model answers, peer feedback, self-assessment and class discussion. Students are set up in learning teams to help each other prepare for the coursework tasks and give feedback. Either side of each assignment deadline, these learning teams meet with tutors. At other times they meet without tutors.

Actual marking is confined to four exams ('time-constrained tasks') to assess the entire year. They have agreement between the different course leaders about the range of tasks, so there aren't two lecturers covering, for instance, lesson planning. There is a grid of competencies that students are supposed to address, and they can see that they are being covered by the exam. Exam answers are quite short, so the external examiner can see on a couple of sides whether students can do these things or not.

Peer-teaching teams in Accountancy

This case study describes how learning improves through the establishment of peer-teaching teams in a system that requires no additional assessment or feedback time to be spent by the tutor.

A 1st Year accountancy course had been stripped down to lectures and an exam, and performance was terrible. Very high failure rates. Almost nobody got marks over seventy, while about 40% of students got below forty. The majority of students got between 30 and 50, which was very, very low.

The tutor responsible bravely showed the students the appalling results from the previous year and put it to them that they might try a really radical experiment. 'Would you like a system where we set you up in teams of four and give you the average mark for your team of four, because I think the same thing will happen as happened in this other context, i.e. exam results will go through the roof?' And amazingly the students voted in favour of it.

They introduced it and it worked. They set up students in learning teams of four and told them: 'You will study in teams of four, you will sit the exam and tests as individuals, but you will get the average mark of your team of four.' The exam board (or the local quality assurance) stipulated three conditions: (i) that the students agreed to it, (ii) that no individual was allowed to pass the course if their individual mark was a fail mark, i.e. no-one could pass the course on the average of the others, and (iii) that no individual was allowed to fail the course if their individual mark was a pass mark.

Students taught each other furiously to make sure the average was high. The average mark went up to something like 56 and about 25% of students got over 70%. Students were still allowed to resit, and the resit mark was allowed to count towards a recalculated group average if it was better, so the group tutored students through the resits. For the first time in living memory nobody failed the course.
Assessment: A Briefing on Assessment of Large Groups

Schemes like this work best when tutors use their time with groups by discussing process - How do you learn effectively in teams of four? - rather than content. What made the difference was changing the process through the social dynamics. You could use economical assessment methods but it doesn’t support learning unless the process is in place. The biggest increase in marks came from the better students. This demonstrated that the act of teaching others had the most impact on performance. Many of these processes bring the bottom up but this one spread the marks. Nothing changed except the social processes associated with the course. You can afford cheap economic assessment methods provided the processes are right. When lecturers shift to economic resource-based methods with low class contact and cheap assessment systems, success is often determined by the social dynamics - the way people collaborate and talk to each other out of class, and things like social pressure and peer pressure.

Assessed on how well they assess in Humanities

This case study describes how staff marking could be significantly reduced while students not only write an essay as before but now gain greater insight into both the subject content and essay writing skills by seeing five other essays and making judgements about them.

On a first year Humanities course the coursework assessment was an essay but as student numbers rose this became increasingly time-consuming to mark. So while still requiring the students to write an essay, instead of staff marking it the students were allowed to bring their essay and the marking criteria (which had been given at the same time as the essay was set) to a mid-term class test. In the test they were given five essays of differing quality on the same topic as the essay they had written, and they were asked to mark and rank them using the marking criteria and their own essay as a guide. They were then marked on how close their ranking and justifications came to what staff considered to be the correct order, which took considerably less time than marking an essay. When this marking was returned it was accompanied by a written explanation of the staff’s marking decisions about the five essays. Staff on this course report that the quality of subsequent essays written has improved considerably since this strategy was adopted.
Bibliography

i. Acknowledgements

This paper reproduces with permission and develops work from the following three publications:


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iii. Further reading


The impact of assessment on student learning – how can the research literature practically help to inform the development of departmental assessment strategies and learner-centred assessment practices

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The impact of assessment on student learning

How can the research literature practically help to inform the development of departmental assessment strategies and learner-centred assessment practices?

CHRIS RUST Oxford Brookes University, UK

ABSTRACT In the context of a worldwide paradigm shift towards student-centred outcomes-based approaches, and at a time when many UK departments are developing learning, teaching and assessment strategies, this article reviews what the research literature says about the impact of assessment on students' learning. It then proceeds to translate that into practical suggestions for practice with the specific intention that this should help to inform departments in the development of appropriate assessment strategies and learner-centred assessment practices which meet the Quality Assurance Agency (QAA) general principles on assessment.

KEYWORDS: assessment, assessment strategies, learner-centred assessment, student learning

Introduction

Assessment is at the heart of the student experience. (Brown and Knight, 1994: 1)

From our students' point of view, assessment always defines the actual curriculum. (Ramsden, 1992: 187)

Assessment defines what students regard as important, how they spend their time and how they come to see themselves as students and then as graduates... If you want to change student learning then change the methods of assessment. (Brown, 1997: 7)

Go to any textbook on teaching in higher education and you will find statements such as these, asserting that assessment methods and systems
influence student behaviour, and ultimately student learning. In my experience, most teaching staff, even though they may not have read any of these books, are nevertheless, at least partially aware of this relationship. They certainly know that if work does not have marks attached many students will either not do it at all or only do it in a perfunctory way. But to what extent have research literature findings about assessment actually informed and reformed our assessment practice? And conversely, to what extent are current assessment practices out of step with what the literature would suggest would be appropriate and effective in improving student learning?

In the UK, now is an ideal time to reflect on both questions. Institutions have been asked to produce learning and teaching strategies, and as a consequence many departments have also been charged with writing their own learning, teaching and assessment strategies. In the light of both, departments may be moved to reconsider and revise their assessment practices, and, in the process, perhaps ensure that they are soundly based on the wealth of research literature. Currently, departments are also having to consider how they will ensure that they meet the QAA codes of practice for assessment. The intention of this article is to review the research literature and its implications for practice to help inform the development of departmental assessment strategies.

**Constructive alignment**

Over the last decade in much of the English-speaking world (including the UK, the USA, Australia, New Zealand and South Africa) and in northern Europe there has been a paradigm shift, at least in the espoused rhetoric of higher education, from a focus on teaching to a focus on learning. Many mission statements can now be found which claim their institutions to be student-centred or learner-centred institutions. Beyond this rhetoric, possibly the most noticeable changes that can be seen, certainly in UK universities, are a greater emphasis on the development of skills, and in particular general, transferable, 'life' skills (and the notion of lifelong-learning), and the writing of course units and modules in terms of intended student-learning outcomes. (For the full implications of what a true paradigm shift might require see Barr and Tagg, 1995.) There does, however, appear to be a significant lag in the connection between changes in teaching methods and changes in assessment. Tom Angelo, describing the situation in the USA, comments:

> We continue to assess student learning — and to graduate and certify students — much as we did in 1986, 1966, or 1946, without meaningful reference to what students should demonstrably know and be able to do. (Angelo, 1996: 3)
And in the UK, it is worth noting that in Quality Assurance Agency (QAA) subject reviews the aspect that most frequently loses a point is 'Teaching, Learning and Assessment', and the reason is almost always something to do with inconsistent assessment practices. Presumably because of these subject review findings, the Higher Education Funding Council for England’s (HEFCE) current invitation to bid for funds under phase four of the Fund for the Development of Teaching and Learning (FDTL) identifies assessment as the first of its generic priority areas, including matching assessment to learning outcomes (HEFCE, 2001). It would, therefore, seem fair to deduce that appropriate changes in assessment practice have been patchy at best. In all too many cases, although the course unit may now be written with four or five learning outcomes, the assessment task or tasks have remained the same and the linkage between the outcomes and the coursework essay, exam or whatever is tenuous at best, and almost always implicit. And may be further confused by the use of assessment criteria which may be additional to, or not directly relate to, the learning outcomes. As a result, students pursuing the courses often do not see any linkage between outcomes and assessment.

In an exam, where choices of which question to answer may be made by the student, it may well be possible to avoid one or more of the outcomes completely. In fact, exams offering choices of sections, or of questions within sections, may have exactly the opposite effect on the students’ approach to their learning than originally intended. A course might well include in its aims the encouragement of the students to read widely, but if the exam can be answered successfully by question spotting and selecting only a few topics to be revised thoroughly the result may be the exact opposite.

Of course, simply by having an exam question with the word 'evaluate' in the title, for example, does not necessarily mean that the students’ skills of evaluation are actually being assessed. They may be, but if the answer can be answered successfully simply by regurgitating the notes taken from the lecture you gave on the topic then all that may actually be being assessed are the students’ memorizing and essay-writing skills, along possibly with the skill of question spotting!

Assessment systems dominate what students are oriented towards in their learning. Even where lecturers say that they want students to be creative and thoughtful, students often recognise that what is really necessary, or at least what is sufficient, is to memorise. (Gibbs, 1992: 10)

When the final assessment decisions have to be aggregated into one mark or grade the linkage to the learning outcomes becomes even more untenable—an issue we will return to later.
So what does the literature suggest about how we might overcome these problems. Probably the most useful model can be found in the recent work of Biggs, and what he has termed 'constructive alignment'.

The fundamental principle of constructive alignment is that a good teaching system aligns teaching method and assessment to the learning activities stated in the objectives so that all aspects of this system are in accord in supporting appropriate student learning. (Biggs, 1999: 11)

Essentially, in summary, Biggs' model of 'constructive alignment' requires a shift in thinking about the process of course design, to the following three stage model:

1. Identify clear learning outcomes.
2. Design appropriate assessment tasks that will directly assess whether each of the learning outcomes has been met.
3. Design appropriate learning opportunities for the students to get them to a point where they can successfully undertake the assessment tasks.

Although the term 'constructive alignment' is not used, this kind of systematic thinking is exactly what the QAA are looking for when they refer to:

effective and appropriate measurement of the achievement by students of the intended learning outcomes. (QAA, General principle 6)

Departments mindful of the QAA requirements, and seeking to follow Biggs' principles, would therefore be well advised to do two things:

1. To require all course modules or units to follow this design model, and to ensure that all assessment tasks, and assessment criteria, clearly and directly relate to the learning outcomes.
2. To audit all their modules' or units' learning outcomes and map them against the subject's programme specifications, to ensure that all the programme specifications will have been assessed for any student successfully completing the course programme.

Deep and surface approaches to learning

Another theory which ought to influence our approach to course design and the assessment strategies we use, and that has been in the literature for considerably longer than Biggs', is that concerning students' approaches to learning (Dahlgren, 1984; Gibbs, 1992; Marton and Saljo, 1976, 1984; Ramsden, 1992). Essentially, this research says that students are capable of taking different approaches to their learning. The surface approach, defined as the student reduces what is to be learnt to the status of unconnected facts to be memorised
[means that] the learning task [becomes] to reproduce the subject matter at a later date. Alternatively, a deep approach to their learning, defined as the student attempts to make sense of what is to be learnt, which consists of ideas and concepts [and] involves [the student in] thinking, seeking integration between components and between tasks, and 'playing' with ideas (Gibbs, 1992: 2). A key finding in this research, regarding the importance of assessment practice, is that most students can adopt either surface or deep approaches to their learning and one of the most important influences on which approach they take is the design of the course and the assessment strategies used.

Course characteristics associated with a surface approach are:

• A heavy workload
• Relatively high class contact hours
• An excessive amount of course material
• A lack of opportunity to pursue subjects in depth
• A lack of choice over subjects and a lack of choice over the method of study
• A threatening and anxiety provoking assessment system.

(Gibbs, 1992: 9)

Course characteristics which can foster a deep approach are:

• The engendering of intrinsic motivation in the students; students wanting and needing to know
• Learner activity
• Interaction with others
• A well structured knowledge base – i.e. where content is taught in integrated wholes and where knowledge is required to be related to other knowledge.

(Gibbs, 1992: 10–11)

So what are the practical implications of this research for assessment strategies? Well obviously to start with we need to ensure, as much as possible, that the workload expected of students is realistic, and that the assessment system is non-threatening and non-anxiety provoking. Some form of continuous assessment is almost certainly more likely to achieve the latter rather than a system in which the assessment 'that counts' all comes at the end. Within a continuous assessment system, we need to ensure that there is plenty of formative feedback at regular intervals, and all assessments need to have clear, assessment criteria known by the students before they undertake the work.

In the words of the QAA:

The principles, procedures and processes of all assessment should be explicit, valid and reliable. (QAA, General principle 2)
many students are likely to leave doing any serious work until a week or so before that exam. So, if we want to help students to pace their learning, and to engage seriously with the material from week one, we need to build in regular assessment tasks. In some accumulative, linear subjects, such as accountancy, this can be especially important. Intermediate tasks either need to carry marks, or be made course requirements (i.e. unless you carry out a minimum number of these tasks during the course you can’t sit the final exam). And if neither of these approaches seems appropriate, we need to be imaginative in finding other incentives. For example, an introductory chemistry course puts multiple-choice questions (MCQs) on the course’s website each week for the students to do in their own time. There are no marks for these tests, and no record is kept of who has taken them, but the students do the questions because they know from the beginning of the course that the end of module exam will include a section of MCQs and that half of these questions will have been selected from those questions used in the weekly tests (Rust, 2001). An additional benefit of an approach like this is that it does not involve any additional work for the tutor as there is no increased marking for such tasks. Peer assessment, and peer-marking using model answers are other techniques with this advantage (for examples see Rust, 2001).

Any departmental audit of assessment tasks and techniques should, therefore, not limit itself to a consideration of summative assessment, but should also consider the amount and nature of formative assessment techniques used, especially with a view to subsequently disseminating and spreading good practice, and creative ideas across the department.

**Marks and grades**

Ultimately, at the end of the whole assessment process on a programme, we give the students a degree classification; before that, on each module or unit, we gave them a numerical mark, or a letter grade (and in some cases both), which was probably derived from combining other numbers and/or grades together. I happen to think that there are a lot of good arguments against doing any of these things (Rust, 2000; Winter, 1983) but for this article I will confine my criticisms to the impact on student learning. So what’s wrong with classifications, marks and/or grades?

My first criticism would be that they don’t mean very much, and are not helpful in providing feedback. This is especially the case for numbers. What does 52 per cent, for example, actually mean? A number of students could all get 52 per cent but for very different reasons, and have considerably different strengths and weaknesses. Although this may be less true for a B grade, for example, it is still true to an extent. But despite their
problematic significance, numbers and grades can be invested with meaning that they do not have, especially by students who may virtually ignore the accompanying feedback. When this happens, students focus on the accumulated average mark or grade point average, or on getting a better mark or grade than others in the class, rather than what has been learnt, or what strengths and weaknesses have been demonstrated in the work.

Fundamentally, however, the main objection must be that with the move to a student-centred outcomes-based model of course design, aggregating students' achievement makes little sense. If the student's score is derived from assessing four or five outcomes (some of which may have been met well, some only partially, and maybe one not at all) to arrive at a number or grade, this does not help the student identify their strengths and weaknesses; neither does it help the course programme ensure that by the end of the programme the student will have met all the degree's programme specifications.

So what is the alternative? Although it may sound radical, I believe the only logical conclusion of an outcomes-based model of course design is an assessment system that assesses explicitly against each individual learning outcome, and whether they have been not met/partially met/met/met well, rather than assessing the module as a whole. Such a system would mean that students received clear direct, feedback on their achievement of individual outcomes, and it could explicitly ensure that all programme specifications are eventually met. The overarching checking that all outcomes are eventually met could be linked to progress files and help to promote serious engagement with them by the students and it could greatly reduce the need for resits (providing outcomes not fully met can be achieved elsewhere in subsequent course units or modules).

How this might work has been described at greater length in an earlier article (Rust, 2000) and I would urge any department that is seriously re-appraising its assessment practices to at least consider whether it could make this more radical step.

Summary and conclusion

There is almost certainly a greater variety of assessment practices being used in our universities today, compared with 10 or 15 years ago, many of which could be justified with reference to what the research literature tells us about the impact of assessment on student learning. However, this variation is patchy, across disciplines and institutions, and not systematically implemented. There is also some research that has yet to make any real impression on practice at all. In considering the QAA general principles on assessment, now is the time for departments to develop clearly
articulated assessment strategies that are explicitly founded on the findings in the research literature. In these strategies, departments are recommended to:

- require all course modules or units to follow a constructively aligned design model, and to ensure that all assessment tasks, and assessment criteria, clearly and directly relate to the learning outcomes;
- audit all their modules' or units' learning outcomes and map them against the subject's programme specifications, to ensure that all the programme specifications will have been assessed for any student successfully completing the course programme;
- ensure, as much as possible, that the workload expected of students is realistic, and that the assessment system is non-threatening and non-anxiety provoking;
- audit the range of assessment strategies that they are using, their appropriateness, and examine critically the reasons why certain techniques may not be being used, and others perhaps over-used;
- engender intrinsic motivation (and reduce plagiarism) by encouraging assessment tasks which resemble 'real-world' tasks and involve active engagement by the student, and by providing choice of tasks;
- allow for 'slow' learning;
- ensure there are sufficient formative assessment tasks, providing more feedback and helping to pace student learning;
- include explicit guidelines on giving effective feedback;
- prepare students for assessment through the use of marking exercises and self and peer-assessment;
- consider alternatives to the use of marks and grades.

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The experience of introducing a common criteria assessment grid across an academic department

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The Experience of Introducing a Common Criteria Assessment Grid Across an Academic Department

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ABSTRACT In the UK, there is growing pressure both within and across institutions to establish common assessment standards. This is an account of the introduction of a common assessment grid in a School of Business. The intention was to develop a comprehensive marking criteria grid to establish common standards of marking and grading for Advanced Level undergraduate modules (those normally taken by second- and third-year students) across the Business programmes. The aim was to provide better guidance to students (and better work as a result) as well as enabling consistency in marking, easier moderation, and easier provision of feedback. It was created using the attributes identified by the Graduate Standards Programme and South-east England consortium (SEEC) generic level descriptors as starting points. While the grid failed to provide comprehensive marking criteria, evidence is presented to suggest that it succeeded in its other intentions. The project also raised questions about the efficacy of setting standards through programme specifications and generic level descriptors.

Introduction

Two studies in the 1990s (Laming, 1990; Newstead & Dennis, 1994) into marking reliability both failed to find any significant statistical correlation between marks when the same work was marked by different markers. The initial impetus to address the issues in this project at Oxford Brookes University came from an external examiner for the Business Studies programme who was a strong proponent of criterion-referenced marking as a means of ensuring consistent standards between markers. (Criterion referencing means having explicit definitions of what is required, either to pass or, in a more complex application, for specific grades. This is in contrast to norm referencing which is when students’ performance within a group is simply compared and ranked.) Another external examiner was concerned to ensure common standards between modules. This led to the idea of developing a programme-wide set of criteria and standards. In addition, if standards could be more clearly defined the moderation of marking between markers should become easier and also feedback to the students could be made explicit in terms of what they had achieved and the justification of the grade awarded. Not only would quality standards be better assured but it should also ease the burden on staff already under pressure to find efficiency gains.

In the last 15 years in the UK, at the same time as a drastic cut in the unit of resource for higher education, there has been a rise from 25% to 50% in the proportion of good
degree results (upper-second-class and first-class degrees). One possible explanation of this is that there has been a drop in standards and that these figures are the result of grade inflation. The Committee of Vice-Chancellors and Principals of the Universities of the United Kingdom (CVCP), the Quality Assurance Agency (QAA) and the Dearing report (NCIHE, 1997), amongst others, have all voiced concern about assessment standards. To address this issue the QAA has just completed pilot studies which attempt to establish explicit degree standards (so called 'threshold' standards or benchmarking) for chemistry, history and law, and a second tranche of subjects is planned. This move to subject benchmarking can be seen as a development from the national discussion of generic level descriptors (Otter, 1992; Greatorex, 1994; Moon, 1995; HEQC, 1996) promoting their use in higher education as a means of establishing common standards. The Higher Education Quality Council (HEQC, 1996) had already argued that level descriptors should be used to develop learning outcomes, which in turn should be used to develop grade or classification descriptors. This project could therefore also be seen, at least in part, as a response to this national trend.

Background of the Assessment Grid

The first step in the project was to develop a comprehensive marking criteria grid to try to establish common standards of marking and grading for advanced level undergraduate modules (those normally taken by second- and third-year students) across the business programmes, with the additional intention of:

• providing more explicit guidance to students;
• enabling consistency in marking and easier moderation;
• making it easier to give feedback.

The aim of the project was to create a universal application of criterion-referencing by all staff involved in teaching on business modules. For the method to be accepted, it should not use up more staff time than current practice. Having considered a number of possible ways of using criterion-referencing, including single grade descriptions and Biggs' SOLO Taxonomy (Biggs & Collis, 1982; Biggs, 1992), a two-dimensional grid was adopted (see Figure 1). The possible criteria to be used were listed and performance descriptors for each grade were provided against each criterion. (Each grade relates to the British degree classification system, which divides the final degree into a hierarchy of three classifications, 1st, 2nd and 3rd, and further divides the 2nd class into upper and lower divisions signified as 2:1 and 2:2.) For example, 'conceptualisation':

A/1st: Able to recognise consistency and reconcile inconsistency between information using cognitive and hypothesising skills;
B+/2.1: Consistent understanding demonstrated in a logical coherent and lucid manner;
B/2.2: Demonstrate understanding in a style which is mostly logical, coherent and flowing;
C/3rd: Attempts to demonstrate a logical and coherent understanding of the subject area but aspects become confused or are undeveloped;
Refer/Fail: Understanding of the assignment not apparent, or lacks a logical and coherent framework, or the subject is confused and undeveloped.

Such a grid should be comprehensive and allow staff to select the criteria that are relevant to particular assessment tasks, assign weighting for each and publish them in the module
Introducing a Common Criteria Assessment Grid

handbook. Against each criterion, the definitions of performance could be published to give both students and markers a clear indication of what is expected. The idea of a grid was not without precedent within the university as one had been developed for use in healthcare studies (Morgan et al., 1996) but it had an insufficient range of criteria. The proposed grid was intended to be inclusive of all assessment criteria used on the programme.

The project concentrated on advanced modules where, arguably, standards are more important as the results directly count towards the final degree classification. Once established and refined, providing the grid proved successful, the intention was to amend it and create equivalent grids for use with basic modules (those normally undertaken by first-year students) and for postgraduate courses. It was expected that the grade descriptors would have to be shifted one grade lower or higher to accommodate basic or postgraduate courses.

To identify all the possible criteria it was necessary to identify agreed outcomes for a degree course. The HEQC pilot 'Graduate Attributes Profile' taken from the Graduate Standards Programme draft report and recommendations was adopted as the starting point. This was an attempt to identify attributes that might be expected to be common to all successful graduates. By using this it was hoped that all the criteria against which the university's undergraduates should be assessed could be identified. Although the School of Business had already identified learning outcomes for all modules, as well as graduate profiles and skills matrices for all degree programmes, the use of externally determined standards would act as a check on the school's definition of a graduate. Subject-specific criteria could be included as the grid was refined.

Creating the Grid

For each criterion the achievement reflected by each grade had to be defined. However, Winter (1994) has already pointed out that while general criteria based on Bloom's taxonomy may be used to distinguish between candidates in a particular assessment they are not sufficient to establish the level. For example, the same criteria, for a top grade, for 'synthesis and evaluation' are being used at school matriculation ('A' level, in the UK), undergraduate and postgraduate levels. A similar argument against the usefulness of generic descriptors was made by Wolf et al. (1997).

To try and overcome this problem of defining a level, the definitions used by two CATS (Credit Accumulation and Transfer Scheme) consortia were adopted. The two consortia are south-east England Consortium (SEEC) and Wales (HECATS) and their definitions relate to four levels: level 1, which is the level of work which might be expected by a first-year undergraduate; level two, from a second year; level 3, from a final year (usually third year in the UK); and a masters' level, designated level M. Where there was a close fit between the criterion identified and the descriptors used by the two consortia, these were used to describe the standard necessary for each grade. This approach made use of the SEEC descriptors in a way for which they were not originally intended but did so because they were already fairly widely accepted and had been developed and refined through consultation across a large number of institutions. In addition, it did not seem unreasonable that work worthy of a first by a final-year undergraduate might be seen to be at the same level as masters level work. However, it actually became necessary to modify this assumption in the practical use of the descriptors (for reasons which are elaborated later) within the eventual grid [1], the standards for a first-class degree (1st) being described by SEEC level 3, an upper-second-class (2:1) by level 2, and a lower-second-class degree (2:2) by level 1.
In-house definitions had to be created for the 'C' grade and the 'fail' or unacceptable level. The assumption was that each defined level was a description of what would be typical for that grade. Where there was not a close fit between a criterion and the SEEC descriptors the healthcare studies' grid (Morgan et al., 1996) was used or new descriptors developed. Despite a number of difficulties with both the graduate attributes and the SEEC level definitions (see later), a seven-page grid was eventually produced (see Figure 1). The grid has 35 criteria to select from, grouped under the following six headings:

- presentation and style;
- conforming to instructions or clarity of objectives;
- content and knowledge;
- thinking, analysis and conclusions;
- methodology/ies;
- practical/intrapersonal/interpersonal skills.

An example of a marksheet produced by selecting appropriate criteria from the grid is also reproduced (Figure 2). Staff do not have to physically produce their own marksheet. By contacting an administrator, staff can simply request certain criteria and the resulting marksheet is produced for them.

**Piloting the Grid (1997–1998)**

Initially the grid was presented to the course (programme) managers for all the undergraduate programmes in business where it could be applied. The purpose of this was both to gain their final approval for its use and to receive feedback for its improvement. Course managers were asked to comment on and pilot the grid. Modifications were made as a result and the grid was launched in time for the start of the Autumn term 1997. Each module leader was provided with a copy of the grids together with a memo setting out how it should be used and the benefits it should bring to them.

The School of Business modular undergraduate programme covers eight subjects taught by over 50 staff, 40 of whom are module leaders. Many modules have quite large numbers of students (up to 300) and therefore involve a team of staff as tutors and markers. To determine the amount of usage, all staff were e-mailed with a brief questionnaire and the bank of module workbooks were checked for marksheet created using the grid. From this 14 staff (25% of all staff) from six subjects were identified as having used the grid. Of these, 13 are module leaders (35% of all module leaders). Feedback on this usage has been obtained from all 14 through five face-to-face semi-structured interviews, eight e-mailed responses and one did both. The form of response was that most convenient to the user, and respondents have been identified with letters A to N.

The questionnaires and interviews were seeking to establish the ways the grid had been used, responses to it and whether its usage provided the expected benefits for staff and students. In general terms, the grid had been used in a standard way, selecting the relevant criteria to make a customised module grid which in all but one case was given to students as well as markers. The users unanimously felt that the grid was very useful and that they would use it again. The responses relating to the expected benefits are considered later.

*Providing more Explicit Guidance to Students*

The evaluation was concerned to discover whether the grade descriptors had provided guidance for the students and whether this was reflected in the quality of the students'
| Conclusions | Analytical and clear conclusions well grounded in theory and literature showing development of new concepts | Good development shown in summary of arguments based in theory/literature | Evidence of findings and conclusions grounded in theory/literature | Limited evidence of findings and conclusions supported by theory/literature | Unsubstantiated/invalid conclusions based on anecdote and generalisations only, or no conclusions at all |
| Analysis | Can analyse new and/or abstract data and situations without guidance using a wide range of techniques appropriate to the topic | Can analyse a range of information with minimum guidance, can apply major theories and compare alternative methods/techniques for obtaining data | Can analyse with guidance using given classification/principles | Can analyse a limited range of information with guidance using classification/principles | Fails to analyse information |
| Conceptualisation | Able to recognise consistency and reconcile inconsistency between information using cognitive and hypothesising skills | Consistent understanding demonstrated in a logical coherent and lucid manner | Demonstrated understanding in a style which is mostly logical, coherent and flowing | Attempts to demonstrate a logical and coherent understanding of the subject area but aspects become confused or undeveloped | Understanding of the assignment not apparent or lacks a logical and coherent framework or the subject is confused or undeveloped |
| Critical reasoning | Consistently demonstrates application of critical analysis well integrated in the text | Clear application of theory through critical analysis/critical thought of the topic area | Demonstrates application of theory through critical analysis of the topic area | Some evidence of critical thought/critical analysis and rationale for work | Lacks critical thought/analysis/reference to theory |
| Reflection/evaluation | Can critically review evidence supporting conclusions/recommendations including its reliability, validity and significance and can investigate contradictory information/identify reasons for contradictions | Can select appropriate techniques of evaluation and can evaluate the relevance and significance of data collected | Can evaluate the reliability of data used defined techniques and/or tutor guidance | Limited and only partially accurate evaluation of data using defined techniques and/or tutor guidance | Fails to evaluate or use techniques of evaluation, or evaluations are totally invalid |
| Synthesis | With minimum guidance can transform abstract data and concepts towards a given purpose and can design novel solutions | Can reformat a range of ideas/information towards a given purpose | Can collect/collate and categorise ideas and information in a predictable | Partially collects/collates and categorises information in a structured way | No organisation of ideas and information |

FIG. 1. Sample sheet from grid.
<table>
<thead>
<tr>
<th>CRITERION</th>
<th>A</th>
<th>B</th>
<th>B+</th>
<th>C</th>
<th>REFER/FAIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Presentation of assignment</td>
<td>Shows a polished and imaginative approach to the topic</td>
<td>Shows organisation and coherence</td>
<td>Carefully and logically organised</td>
<td>Shows some attempt to organise in a logical manner</td>
<td>Disorganised/incoherent</td>
</tr>
<tr>
<td>Attention to purpose</td>
<td>Has addressed the main purpose of the assignment comprehensively and imaginatively</td>
<td>Has addressed the purpose of the assignment coherently and with some attempt to demonstrate imagination</td>
<td>Has addressed the main purpose of the assignment comprehensively</td>
<td>Has addressed the main purpose of the assignment</td>
<td>Fails to address the task set</td>
</tr>
<tr>
<td>Self-criticism (include reflection on practice)</td>
<td>Is confident in application of own criteria of judgement and in challenge of received opinion in action and can reflect on action</td>
<td>Is able to evaluate own strengths and weaknesses; can challenge received opinion and begins to develop own criteria and judgement</td>
<td>Identifies strengths of learning needs and follows activities to improve learning needs and follows</td>
<td>Fails to meaningfully undertake the process of self criticism</td>
<td>Fails to undertake the process of self criticism</td>
</tr>
<tr>
<td>Independence/autonomy (include planning and managing learning)</td>
<td>With minimum guidance can manage own learning using full range of resources for discipline, can seek and make use of feedback</td>
<td>Can undertake clearly directed work independently, directing own work and making use of relevant teaching resources and accessing a range of learning resources if guided</td>
<td>Can work independently within a relevant ethos and can access and use a range of learning resources</td>
<td>Can work independently within a relevant ethos and can access and use a range of learning resources</td>
<td>Unable to work independently, needing significant guidance on methods and resources</td>
</tr>
</tbody>
</table>

Comment: ..............

Marker: [-3x0] Mark: [353x80] FIG. 2. Sample marksheet.
work and their subsequent marks (grades). The staff indicated that the students appreciated the grid especially where the staff drew the students' attention to it. The student feedback they had received also indicated a positive response to the grid. However, in almost all cases there did not appear to be any difference in student performance overall. Nor was there any apparent difference in how the students had approached their work.

I think it may have increased their understanding of the way we have marked but I don't think it's changed their behaviour in terms of approaching the assignment in the way that we hoped that it might. (A)

However, staff noted small numbers of highly motivated students who individually came to discuss the criteria and descriptors and, for this group, it was thought that this might have resulted in a better focus on what they were required to do.

One or two came up to me and said they found this [the marking grid] quite helpful because it's the first time they'd ever really thought about what the criteria for a first were, what the different levels that they should be aiming at were. (B)

A link with motivation was also observed on one particular module composed entirely of international students. These students were only expected to be in the university for one year and had done badly in the assessment in the preceding module.

All of the international students had tried to get to grips with this marking criteria and ... the quality of that work that came back, because of that, was vastly improved. (C)

Another module, where students had just returned from work placements and thus were arguably more focused, also reported improved performance.

I got exceptionally good work from some students, better than last year, because they had addressed the criteria. (D)

With the exception of these two modules, it seems that providing the grid alone without discussion was insufficient to affect the achievement and behaviour of the majority of students. However, where the staff actually went through the marking grid in some detail far more student interest was generated and this was reflected in their work.

We talked about what was description and what was evaluation and I think that did help to clarify what was needed. (C)

In at least one case, a perception of better work seemed to have been borne out by the external examiner.

[The external examiner] thought that it was some of the best work she had ever seen by basic students and they had tried to come to grips with it. (C)

Where the grid was discussed, staff also reported that some students had some difficulty understanding it. This was attributed to a number of factors: the language used is overly complicated, the descriptors do not relate directly to the specific task, the meaning of some 'technical' words are not understood and were used within the descriptors. It is clear that some descriptors need rewriting. It was suggested that a glossary of terms might be useful and that module leaders might consider customising the descriptors to the particular assignment. However, the latter was not a universal view. One member of staff actually argued that the generic nature of the grid was a positive virtue.
It makes clear what ones thinking is .... One of the beauties of this [the generic grid] is it shows what students have to do without leading them. (A)

It is clear that without entering into a dialogue with students about the criteria and descriptors the grid offers little in terms of providing more explicit guidance for them. However, it seems to have the potential to do so if there are revisions made to the language used in the descriptors and discussion takes place about the grid prior to the assessment task being undertaken.

Enabling Consistency in Marking and Easier Moderation

Confusion about the language used was not solely a problem for the students but also for the staff.

Not only were the students unclear what the term analysis or critical reasoning meant, seminar leaders also had very different views of what those terms meant. (C)

This might explain the opinion of one module leader, where there had been no prior discussion between the markers using the grid, that it had actually made the degree of consistency worse! However, in other cases, where there had been prior discussion, once a common meaning was established, especially about the language used, it was reported as having a positive difference.

It made the marking easier and the moderation too. (C)

As intended, the grid had been used as a framework for decision making (relating to marks) and for discussion and justification of marks both at moderation and to individual students in tutorials.

... it makes it easier to arrive at a conclusion. Sometimes it's easy to arrive at that conclusion and the grid confirms it. Sometimes there are borderlines or it's good in that respect or poor in that respect .... It makes clear what one's thinking is, either to the student or another person marking, or the external. (A)

It was also noted that the prior discussion of the grid had the additional benefit of helping the course team to clarify and conceptualise the espoused learning outcomes for the module.

It does help to conceptualise and codify the module outcomes and is worth developing further. (E)

One marker also claimed it had improved his own internal consistency when marking a large number of papers (75) over a period of time.

I found it really helpful from a personal basis just to keep on track with what I actually meant and what a certain grade meant and I kept going back to it. I did find it extremely helpful. (F)

Speeding up the Marking Process

Although not agreed by all the staff, there were also some who argued that it actually made the marking quicker.
It generally helped speed up marking of coursework. (G)

By providing a framework for discussion and decision making the grid has made a positive contribution to the process of marking and moderation. Such discussion allows for the clarification of the meaning of the descriptors and helps to establish the relationship between assessment and the learning outcomes.

Making it Easier to Give Feedback

All staff said that it made giving feedback to the student easier, either by ticking the appropriate boxes on the grid and then adding further specific comments or by using the grid to focus their comments.

If a student came to you with a piece of work and said could you explain to me ... I think that helped them to understand a bit more clearly because they have got that box ticked. (H)

In addition to making the feedback easier, it was also noted that it ensured that feedback was comprehensive and covered all the criteria. The framework of the grid, thus, seems to have provided a means to more structured and focused feedback.

Overall, the respondents confirmed that the grid had largely achieved, or had potential to achieve, the intended additional benefits described above within modules where it has been used. However, although it seemed that common standards could be established within modules it cannot be claimed that there is evidence that the grid has managed to establish a common level across modules.

Establishing a Common Standard or Level

The grid was intended to define a common standard for advanced modules but in practice it had also been used on a basic module and an MBA module. In neither case did the staff report any problem with regard to the performance descriptions of the grades, nor did they amend them. They were happy to use the same grade definitions. If the grid had successfully defined a standard for advanced modules one would have expected work of a similar quality to be marked differently at basic, advanced and master's levels. The fact that the grid had been used at all three levels without any problem would, therefore, suggest that the definitions are still too general to define the level, tutors being able to interpret them sufficiently to accommodate the differences.

Although it appears that the grid helps to establish consistency in comparing the work of students within a module, it has failed to be sufficiently detailed to establish a common level of requirements across modules.

Other Issues Raised by the Project

SEEC Level Descriptors

The question of standards was also raised when applying SEEC/Wales HECATS level descriptors in the creation of the grid. The initial design of the grid attempted to use the SEEC descriptors with a 1st being described by SEEC level M, a 2:1 by level 3, a 2.2 by level 2, and a 3rd by level 1. However, using the descriptors in this way would have set standards above the reality of what was happening in practice. For example, for 'synthesis', SEEC level 1 descriptor (used as a third-class degree standard) is 'Can
collect/collate and categorise ideas and information in a predictable and standard form'. This more accurately describes work that is likely to be awarded a lower-second-class degree. Students are currently being awarded a third-class degree who can only partially meet this requirement. So applying this grid would have meant that a far higher percentage of students would have been failed. Therefore, everything was moved up a grade, with a first-class degree described by SEEC level 3. It was thus necessary to create new definitions for a third-class degree, so for the example, 'synthesis' it became 'can partially collect/collate and categorise information in a structured way'.

It is possible to conceive that the SEEC level descriptors are aspirational and describe what the course will attempt to achieve and therefore the level hoped for from better students—a modal description. However, that is not the function of these level descriptors. Their purpose is to define thresholds that all students would be expected to meet so that a student coming with certain CATS credits from one university's course can be assumed by a second university to have achieved a certain level of ability as defined by the descriptors. It is salutary to note that it seems that students are passing final year degree work (albeit with a third) with work that would not meet SEEC's description of level 1.

**Thresholds versus Aggregation**

Use of the grid has also highlighted the fact that much of UK higher education is currently caught between two essentially incompatible systems. The prevailing orthodoxy is now for courses and modules to be described in terms of learning outcomes and for the assessments used to clearly relate to these outcomes. Logically, for the student to pass a module they should have to pass each of the learning outcomes and this is common in many vocational qualifications. However, traditionally, marking has been more subjective and involved the aggregation of positive and negative aspects of the work with 40% still being sufficient to pass. Such aggregation means that it cannot be guaranteed that all learning outcomes are achieved. All the users of the grid adopted the latter approach of aggregation between the criteria. It could however be used with the former philosophy simply by requiring every criterion to be passed. Used in this way it would also link very easily to a profiling system.

**Problem of Take-up**

Given that even if the grid has failed in its major aim of establishing a common standard across modules, it has nevertheless proved very useful, perhaps the biggest problem with it is in fact how to persuade staff of its value. Despite our best efforts to date we have only succeeded in a 25% take-up rate.

**Conclusions**

This project has confirmed that a tool such as the assessment grid can provide real benefits to its users but it has also raised serious questions about the process of standard setting in higher education.

The project has demonstrated that use of a common assessment grid can have potential benefits and raise quality in a number of important ways. It can help to provide better guidance to students on what is required of them and thus improve the quality of their work. However, this is likely to be only true for the most motivated students unless time
Introducing a Common Criteria Assessment Grid

is actually spent directly considering what the grid means and defining term in discussion with the students.

It can help to raise the quality of marking through greater consistency in marking both for a team of markers and for an individual marker. It can lead to easier moderation but this is much more likely to be the case if the tutors have discussed the grid together before attempting to use it. This can also have the added benefit of helping the course team to focus on and clarify the course’s intended learning outcomes.

Using the grid can raise the quality of feedback to students by making it easier to give and helping to focus markers’ comments.

However, the initial aim to establish common standards of marking and grading across advanced level modules in the School of Business through a common grid of detailed criteria does not appear to be possible. Other important factors, such as the nature and complexity of the assessment task set, the difficulty of the intended learning outcomes of the course, or the interpretation of the descriptors by the marker, preclude this. These factors need to be recognised and incorporated in the process of standard setting. The apparent failure to define a common set of standards in one school within one university does not bode well for the attempts of the QAA to establish common minimum standards for disciplines across all universities through the use of programme specifications, which, if anything, are likely to be more general and open to subjective interpretation. As suggested by Wright (1996) it seems that standards depend on shared subjectivity rather than a completely objective model of assessment. For the grid, this shared subjectivity came only through dialogue between and among staff and students.

There would also seem to be similar implications for those bodies currently trying to establish common generic descriptors of level for a national CATS framework. Furthermore, when compared with the reality of existing assessment experience, CATS descriptors appear to be defining aspirational levels rather than thresholds that have been met by every student passing that level.

The benefits of using the grid may provide the lever to increase the amount of usage of the grid across more modules. When a critical mass is achieved among staff and students a shared understanding of the terms and standards may be established and ultimately embedded in the school. This would seem possible for a school and might even be feasible for an institution but the prospect of achieving this nationally seems more aspirational than real.

Editor’s Note

[1] This involves conflating classification of degree with level descriptors, which is contentious. Degree classification is a grading of student attainment at the conclusion of a programme. SEEC level descriptors are usually seen as descriptors of abilities at stages within a programme. The authors propose an alternative view of level descriptors.

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The student experience of criterion-referenced assessment (through the introduction of a common criteria assessment grid

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The Student Experience of Criterion-Referenced Assessment (Through the Introduction of a Common Criteria Assessment Grid)

Berry O'Donovan, Margaret Price and Chris Rust, Oxford Brookes University, UK

SUMMARY

Growing concern over marking reliability and standards within UK higher education has led in recent years to increasing interest in criterion-referenced assessment. As part of an ongoing research project this paper examines student experience of criterion-referenced assessment and, in particular, a criteria assessment grid developed for the Business School at Oxford Brookes University. The main findings of this paper report the evident thirst students voiced for more reliable marking processes and clearer guidelines on assessment requirements and criteria. However, whilst students applauded the criterion-reference grid as a 'good idea' and one that did help clarify assessment requirements they also highlighted several shortcomings. Such shortcomings included issues of subjectivity and multiple interpretations of criteria and standards. The paper concludes that the criterion-reference grid, from the student perspective, appeared to be of limited practical benefit unless presented as part of multifaceted approach including explanation, exemplars and opportunities for discussion.

INTRODUCTION

This paper constitutes part of an ongoing research project into criterion-referenced assessment tools and processes, undertaken in the pursuit of a conceptually sound and functional assessment framework that would promote and encourage common standards of assessment. Commenced against a background of growing national concern in the UK about marking reliability and standards, and calls for public accountability (Laming, 1990; Newstead and Dennis, 1994), a common criteria assessment grid was developed and piloted, and its effectiveness evaluated from the perspective of academic staff. These two opening stages of the research project are summarized below (see 'Background' section) and have already been reported elsewhere (Price and Rust, 1999). The third stage, and the subject of this paper, was to investigate the student perspective and to evaluate their experience of the use and effectiveness of criteria-referenced assessment and, in particular, the criterion assessment grid, and to identify the best ways of taking this project forward.

CONTEXT

The initial impetus to address the issues in this project came from an external examiner for the Business Studies programme at Oxford Brookes University, who was a strong proponent of criterion-referenced assessment as a means of ensuring consistent standards between markers. Another external examiner was keen to ensure common standards between modules. These concerns and recommendations were expressed at a time when, across the sector, opinion on assessment was divided. The established normative, 'connoisseur' model of assessment ('I could not describe it, but I know a good piece of work when I see it', most often likened to the skills of wine tasting or tea-blending) had been challenged by the emerging use of explicit assessment criteria and performance standards.

Compelling pressure has been applied to higher education institutions across the UK to maintain high academic standards (Lucas and Webster, 1998). This pressure has been increased over the last few years by an apparent drop in standards, suggested by the rise from 25% to 50% in the proportion of good degree results (upper second-class and first-class
degrees). This increase in good degree results has understandably met with scepticism from the public, who viewed it in the context of a rapid expansion of student numbers and a drastic cut in the unit of resource in UK higher education. In response, the Quality Assurance Agency (QAA) embarked on a new quality assurance system reliant on the establishing of explicit degree standards (so called 'threshold' standards or 'benchmarking'). This move could be seen as a logical development of the national discussion on generic level descriptors (Otter, 1992; Greatorex, 1994; Moon, 1995; HEQC, 1996), promoting their use in higher education as a means of establishing common standards. These common standards can be particularly difficult to realize within a broad-ranging, multidisciplinary and discursive subject such as Business and Management in which many open form assessments, such as essays and reports, are set on topics which are integrative in nature.

It was in this context that the development of a programme-wide set of criteria 'referenced' against standards for use across the whole Business Studies programme at Oxford Brookes University was proposed.

BACKGROUND - THE INITIAL STAGES OF THE PROJECT

A common criteria assessment grid was developed within the Business School, for its use, and first piloted there in the academic year 1997–1998. The grid has 35 criteria plotted in matrix format against grades, resulting in 'grade definitions' detailing acceptable performance for each criterion at each grade (one page of the grid detailing six criteria is reproduced in Figure 1). Staff select appropriate criteria for any given assessment to create a 'mini-grid' (see Figure 2 for an example). The main intention was to develop a comprehensive marking criteria grid to help establish common standards of marking and grading for Advanced Level undergraduate modules (those normally taken by second and third year students) across the Business Studies programme, enabling consistency in marking and easier moderation. Furthermore, it was hoped that the grid would have the additional benefits of providing students with more explicit guidance (resulting in better work), and making it easier for staff to give effective feedback to students.

The results of this pilot were initially evaluated by soliciting the views of the staff who had used the grid, through a combination of questionnaires and one-to-one interviews (Price and Rust, 1999). The only student input into this initial evaluation was as perceived by the staff questioned.

The main conclusion of this initial paper was that, at least in its present form and usage, the grid had failed to precisely define a common standard for Advanced Level undergraduate modules. This was evidenced by the fact that different tutors had used the assessment grid, and consequently exactly the same grade definitions, for a Basic Level module (one normally taken by first year students) and a Masters Level module apparently without any difficulty. However, the paper further concluded that the findings had demonstrated that the use of such a grid could provide other real benefits, namely that it could help to raise the quality of marking through greater consistency in marking. This was true both for a team of markers and for an individual marker, but this was more likely to be the case if the tutors had discussed the grid together before using it. It could also, from the tutor perspective, help to provide more explicit guidance to students and thus potentially improve the quality of their work, although it appeared that this was only likely to be true for the most motivated students unless time was spent by tutors discussing with students the meaning of the criteria terms and grade definitions. Using the grid could also improve the quality of feedback to students by making it easier to give and by helping to focus the marker’s comments.

The initial mixed findings reflected many of the issues associated with criterion referencing in the marking of more qualitative and open form assessment. Whilst many would agree that criterion-referenced assessment appeals to our notion of equity and fairness, it is not without its pitfalls, not least of which is the potential for multiple interpretations of each criterion and grade definition by both individual staff members (Webster et al., 2000) and students.

Consequently, the next stage of the research was to investigate the student experience of criterion-referenced assessment and, in particular, the grid. It is these findings that this paper summarizes and discusses.

METHODOLOGY

Within the context of multiple possible interpretations of assessment criteria and standards, our research aimed to reveal a rich understanding of the student experience of criterion-referenced assessment that would attempt to capture and convey students’
<table>
<thead>
<tr>
<th>Thinking/analysis/conclusions</th>
<th>A</th>
<th>B+</th>
<th>B</th>
<th>C</th>
<th>Refer/Fail</th>
</tr>
</thead>
<tbody>
<tr>
<td>15 Conclusions</td>
<td>Analytical and clear conclusions well grounded in theory and literature showing development of new concepts</td>
<td>Good development shown in summary of arguments based in theory/literature</td>
<td>Evidence of findings and conclusions grounded in theory/literature</td>
<td>Limited evidence of findings and conclusions supported by theory/literature</td>
<td>Unsubstantiated/invalid conclusions based on anecdote and generalisation only, or no conclusions at all</td>
</tr>
<tr>
<td>16 Analysis</td>
<td>Can analyse new and/or abstract data and situations without guidance using a wide range of techniques appropriate to the topic</td>
<td>Can analyse a range of information with minimum guidance, can apply major theories and compare alternative methods/techniques for obtaining data</td>
<td>Can analyse with guidance using given classification/principles</td>
<td>Can analyse a limited range of information with guidance using classification/principles</td>
<td>Fails to analyse information</td>
</tr>
<tr>
<td>17 Conceptualisation</td>
<td>Able to recognise consistency and reconcile inconsistency between information using cognitive and hypothesising skills</td>
<td>Consistent understanding demonstrated in a logical, coherent and lucid manner</td>
<td>Demonstrated understanding in a style which is mostly logical, coherent and flowing</td>
<td>Attempts to demonstrate a logical and coherent understanding of the subject area but aspects become confused or undeveloped</td>
<td>Understanding of the assignment not apparent, or lacks a logical and coherent framework, or the subject is confused or undeveloped</td>
</tr>
<tr>
<td>18 Critical reasoning</td>
<td>Consistently demonstrates application of critical analysis well integrated in the text</td>
<td>Clear application of theory through critical analysis/critical thought of the topic area</td>
<td>Demonstrates application of theory through critical analysis of the topic area</td>
<td>Some evidence of critical thought/critical analysis and rationale for work</td>
<td>Lacks critical thought/analysis/reference to theory</td>
</tr>
<tr>
<td>19 Reflection/evaluation</td>
<td>Can critically review evidence supporting conclusions/recommendations including its reliability, validity and significance and can investigate contradictory information/identify reasons for contradictions</td>
<td>Can select appropriate techniques of evaluation and can evaluate the relevance and significance of data collected</td>
<td>Can evaluate the reliability of data using defined techniques and/or tutor guidance</td>
<td>Limited and only partially accurate evaluation of data using defined techniques and/or tutor guidance</td>
<td>Fails to evaluate or use techniques of evaluation, or evaluations are totally invalid</td>
</tr>
<tr>
<td>20 Synthesis</td>
<td>With minimum guidance can transform abstract data and concepts towards a given purpose and can design novel solutions</td>
<td>Can reformat a range of ideas/information towards a given purpose</td>
<td>Can collect/collate and categorise ideas and information in a predictable and standard format</td>
<td>Partially collects/collates and categorises information in a structured way</td>
<td>No organisation of ideas and information</td>
</tr>
</tbody>
</table>

Figure 1 Sample page from grid
## ASSIGNMENT 1

<table>
<thead>
<tr>
<th>CRITERION</th>
<th>A</th>
<th>B+</th>
<th>B</th>
<th>C</th>
<th>Refer/Fail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Presentation of assignment</td>
<td>Shows a polished and imaginative approach to the topic</td>
<td>Carefully and logically organised</td>
<td>Shows organisation and coherence</td>
<td>Shows some attempt to organise in a logical manner</td>
<td>Disorganised/ incoherent</td>
</tr>
<tr>
<td>Attention to purpose</td>
<td>Has addressed the purpose of the assignment comprehensively and imaginatively</td>
<td>Has addressed the purpose of the assignment coherently and with some attempt to demonstrate imagination</td>
<td>Has addressed the main purpose of the assignment</td>
<td>Some of the work is focused on the aims and themes of the assignment</td>
<td>Fails to address the task set</td>
</tr>
<tr>
<td>Self-criticism (include reflection on practice)</td>
<td>Is confident in application of own criteria of judgement and in challenge of received opinion in action and can reflect on action</td>
<td>Is able to evaluate own strengths and weaknesses; can challenge received opinion and begins to develop own criteria and judgement</td>
<td>Is largely dependent on criteria set by others but begins to recognise own strengths and weaknesses</td>
<td>Dependent on criteria set by others. Begins to recognise own strengths and weaknesses</td>
<td>Fails to meaningfully undertake the process of self criticism</td>
</tr>
<tr>
<td>Independence/Autonomy (including planning and managing learning)</td>
<td>With minimum guidance can manage own learning using full range of resources for discipline; can seek and make use of feedback</td>
<td>Identifies strengths of learning needs and follows activities to improve performance; is autonomous in straight forward study tasks</td>
<td>Can work independently within a relevant ethos and can access and use a range of learning resources</td>
<td>Can undertake clearly directed work independently within a relevant ethos and, with some guidance, use the standard learning resources</td>
<td>Unable to work independently, needing significant guidance on methods and resources</td>
</tr>
</tbody>
</table>

(Please tick boxes)

Comment: .................................................................

Marker: .................................................................

Mark: .................................................................

Figure 2 *Sample marksheet*
perception and understanding of the experience. A two-step process was employed: an initial broad sweep survey by questionnaire to check and identify the main issues, which were then used to structure conversational style ‘prompts’ given to a number of focus groups to gather more in-depth qualitative data. The questionnaire was initially sent electronically to students on two core Advanced Level undergraduate modules, but this elicited only three responses. It was then administered at the end of a weekly seminar on one of those modules, and out of just over 100 given out, 89 were returned.

Perhaps predictably, the 92 completed questionnaires (89 paper, 3 electronic) did not provide the rich data we were seeking. In particular, open questions asking for explanations gleaned few responses. Of a number of issues relating to the use of the grid and its application, most had already been anticipated from the previous study, nevertheless the data provided useful confirmation. One particular issue the survey did highlight was that a number of students (16, 24% of those that had used the grid) had apparently had difficulty using the grid.

Following the questionnaire survey, three focus groups were conducted by an independent facilitator. There was a poor response to the request on the survey questionnaire for volunteers to join focus groups (one!), so direct, but not targeted, requests were made to groups of students on modules known to be using the grid. The first two groups had seven participants and the third had four. The proceedings of each group were audiotaped and the tapes subsequently transcribed.

Data for analysis therefore took the form of questionnaire information and focus group tapes and transcripts. Interpretation and analysis of the meaning of the richer and more qualitative data from the focus groups was undertaken through the independent identification by each of the researchers of the themes and debates arising out of the alignment and grouping of individual elements from the textual transcripts. The objective was to attain a pattern of responses representing the subjects’ sense of criterion-reference assessment through a ‘sufficiency’ of focus group data. Such sufficiency was gained through an interpretivist approach which simply required enough data for a rationality to emerge (Spender, 1989). The validity of interpretation was strengthened, firstly, when a coherent rationality was considered to have surfaced when researchers pooled their individual interpretations and, secondly, when much of the findings confirmed prior published research.

The findings are reported below, grouped under the following headings:

- usefulness as a guide and in improving the quality of work;
- usefulness in improving feedback;
- usefulness in improving standards and marking consistency;
- student suggestions for improvement.

This is followed by a discussion on the overarching, fundamental and most interesting themes concerning criterion-referenced assessment that became apparent and consideration of the next steps to be taken in this research project.

**FINDINGS**

**Usefulness as a guide and in improving the quality of work**

From the questionnaire, 68 (73%) of the 92 respondents said they had made use of the grid and, of these, 35 (52%) had used it in ‘planning’ and/or ‘whilst doing’ and/or in ‘reviewing’ their work prior to submission.

The general consensus from the focus groups was that the grid could be helpful in clarifying what was expected of a piece of work:

> It shows students what they should include ... in their assignments and the relative weightings of the different components. (IE)

Further, it could be especially helpful when it guided students to elements they considered obscure and non-obvious, which they might otherwise have ignored. The proposition that students have a right to be informed and guided on the criteria and standards on which their work will be assessed is a compelling one (Brooker *et al.*, 1998). It is also difficult to argue with Sadler’s point that without an understanding of criteria and standards, students’ efforts ‘are likely to contain elements of random trial and error’ (1987, p 196).

Over and beyond clarification, at least three different strategies for using the grid were identified in the focus groups:

- refer to it straight from the beginning ... base and structure it from the start. (3C)
- other way round, ... almost complete and then go and check the grid. (3D)
I probably plan it and before I went to write it I would go and look at the assessment grid. Then when I think I’ve finished it, I would go back and use the grid again. (3E)

There were a variety of criticisms of the grid and its usefulness, as well as reasons offered as to why the grid was not used more widely as a guide.

Lack of detail
A major criticism from most of the focus group members was the need for greater clarification of what is meant by many of the terms and phrases used in the grid.

[the grid] needs clarification, I mean ‘address them comprehensively’ what do you mean? (1E)

There is very little difference between a ‘C’ and an ‘A’. It is very hard to distinguish the differences. (2G)

It is too broad and too vague. (2E)

These charges of vagueness and imprecision echo one of the principal arguments against criterion-referencing, namely, that it may be an ideal solution for simply defined competencies (e.g. ‘can swim 50 metres’), but is clearly problematic as assessment becomes more complex and grade definitions are added (Gipps, 1994).

However, producing evermore numerous, detailed and complex criteria has made assessment unmanageable: ‘A careful path needs to be found between the extremes of vague and nebulous criteria on one hand, and a proliferation of detailed and trivial objectives on the other’ (Shorrock et al., 1992 quoted in Gipps, 1994, p 93). Furthermore, these criticisms encompass two different viewpoints, ranging from the desire for better and clearer guidelines to the desire for more specific clarification of content. The distinction between making assessment criteria and standards explicit to students and precise guidance on content requires careful explanation. In the course of the discussion, some students demonstrated, if sometimes a little reluctantly, an understanding that the latter may not always be appropriate at university level.

There’s a difference between making things clear and taking out some of these words that are very subjective, and telling you what to put which would obviously not be acceptable. (2A)

Subjectivity
Linked to the criticism of the lack of detail and precision was a further, strongly voiced concern that interpretation of wording and its meaning is always going to be subjective and open to multiple interpretations between individual students and staff. The wide-ranging interpretations by staff members, previously highlighted by the research undertaken by Webster et al. (2000), is compounded for students as relatively novice participants within the context of academic standards and criteria.

as in comprehensive and imaginative you know, that’s all very subjective . . . (1B)

[it’s] open to interpretation – what some might perceive as imaginative, other people may not. (3C)

Familiarity/negative experiences
Due to problems of subjectivity of individual interpretation (by both staff and students), imprecision and lack of clarity of grade definitions and criteria, it was apparent that many students had, over time, become disillusioned and frustrated with the grid:

I think the reaction does get sort of more blasé and not bothering to look at it. (1C)

The first time . . . I was quite excited . . . if I do X, Y and Z I’ll get a good mark, but when you do use it and the feedback doesn’t quite match, when you’ve had experience of it not working particularly, well the second time you’re a bit numb to it and you think ‘well I tried to do it this way last time and I didn’t do any better than I have done previously anyway, so you use it either less or not at all’. (1G)

However at least one member of the focus groups had the opposite point of view:

In my second year I didn’t actually look at these too much, but for the coursework so far [given in the third year] I have used the grids. (3C)

Implicit in their comments is that positive experiences of using the grid are likely to encourage continued use whilst negative experiences can dash expectations. As Brooker et al. (1998) identify, the importance of providing students with explicit and useful information on assessment in advance cannot be underestimated in terms of increasing motivation.
Need for staff to explain/discuss the grid

The focus groups also suggested that some students did not use the grid because staff appeared to disregard it. This clearly has implications that again link back to the questions of subjectivity and lack of detail. If more staff had introduced, discussed and explained the grid, one would hope that a greater degree of (shared) understanding might have been achieved.

I think the problem is sticking them [the grids] at the back of the course book because they get forgotten about. (3D)

It's pointless giving someone something and then not explaining it to them. (3E)

If it hasn't been explained to you then I think if you get more and more you just think of it as another piece of paper. (1C)

Shared understanding is more often achieved through a combination of tacit and explicit modes of knowledge transfer and can include such processes as observation, exemplars, imitation and practice (Nonaka, 1991). Sadler argues that owing to the inherent imprecision of verbal description, the way to specify standards is through a combination of verbal descriptors and exemplars: "This dual approach has the potential not only for achieving comparability among schools, but also for helping students to acquire evaluative expertise themselves" (1987, p 207).

Usefulness in improving feedback

The second anticipated direct benefit to students was that the grid proved useful in improving the feedback they received on work once it had been assessed. Sadler suggests 'one of the conditions necessary for the intelligent use of feedback is that learners know not only their own levels of performance but also the level or standard aspired to or expected' (1987 p196). Staff could either make direct reference to the grid definitions in their comments, and/or possibly through using the grid itself as a feedback form with relevant grade definitions ticked or highlighted or, alternatively, students could use the grid themselves to make sense of their mark and the tutor's comments. With regard to the first two of these options, the focus groups were clear that, used by itself, the grid was not sufficient as a feedback tool.

It may be very quick and easy for a lecturer to have a highlight pen and just highlight these boxes but... it doesn't tell me anything at all; it tells me no more than when I read through it initially. (1D)

This obviously links to the criticism of the general nature of the grid definitions. The fact that these were seen by some students as unclear and vague in providing guidance means that they could similarly be seen as unclear and vague in providing feedback, if that was all that was provided. The groups' conversations around feedback also revealed that their prime concern was seeking feedback on the specific task undertaken rather than at the meta-level of the criteria used to assess the task provided by the grid.

There was widespread agreement in the focus groups that the grids could be useful in helping students make sense of their grades and the tutor's comment, and in the survey response 22 (32%) of those using the grid said they had used it to help understand marking feedback. In particular, but not exclusively, data from the focus groups indicated that this was especially likely to be the case if the student had received a disappointing or bad mark.

If you haven't done as well as you thought you did you can go back and see, and try to figure out why they think you've done and on what basis. (3C)

Had I got a piece of work back and it was given a 'C' then I might go to this and start thinking, 'why?'... I would use it to understand where the mark came from to try and work out in my own mind what I didn't do to get a better mark. (1F)

I've just got a report back and I'm not very pleased with it [the mark], so I'm going to go back and have a look at this sheet. (2B)

In some cases there was also the suggestion that such analysis using the grid might prove useful in making a case to appeal marks. An interesting observation made by the students was that feedback tended to concentrate on weaknesses and did not sufficiently help to identify strengths. If we tend to advise students on what they have done wrong rather than right, they can only learn what was right by a (possibly lengthy) process of elimination. There would seem to be similarities here with the 'connoisseur' approach to assessment in that, even when (and if) they reach this point, they may still not know or be able to articulate exactly what the positive features are that make it 'right'.

Several participants went even further and suggested that using the grid to analyse feedback for different assignments over time could help to identify patterns of performance. If it were to include both strengths and weaknesses, in some cases this analysis might highlight...
persistent weaknesses; in others it might even identify previously unidentified weaknesses.

It is interesting to see when you’ve done a lot of assignments, that when you receive the assessment grids back, if you are consistently doing badly in a particular area. (3C)

... can help to identify weaknesses you didn’t know you had. (3D)

Usefulness in improving standards and marking consistency

We have already considered the students’ criticisms of trying to use the grid to improve and identify their own standards, which focused on the criteria and grade definitions being too general and vague, and the subsequent problems of definitional interpretation and subjectivity. They also identified that this was likely to be equally problematic for staff.

Each one of them [grade definitions and criteria] is open to interpretation, one, between each student, and two, between each lecturer. (1F)

... because it is not specific enough, it is trying to regulate the marks among the lecturers but I’m sure they have trouble using it too. (2C)

If I was a lecturer I think I’d sit there and wonder what’s the difference between all of these. (2G)

I expect if you asked all the lecturers to define ‘polished’, I expect they’d be very different. (2D)

It was also suggested that other, more personal factors would prevent the grid from making staff marking completely reliable. These ranged from cynical views about staff moods and individual perverseness through to recognition of the influences of norm referencing and the ‘connoisseur’ approach to assessment.

Marking is a subjective [sic] thing, your assignment is actually going to be tainted by the one it follows. (2E)

I don’t believe at all that markers would stick to the criteria. (1G)

If you are the sort of lecturer that doesn’t much desire to use the grid and will look at a piece of coursework, formulate its mark in the first five minutes of reading it, ‘Right this piece of coursework is worth a B+, now what do I need to write on this then? I need to tick this box, etc. because that’s how this piece of work will fit into being marked at this grade’. (1D)

The students’ acute understanding of the subjective and normative nature of many forms of assessment provides an interesting response to any argument that the questioning of assessment practices can potentially alarm and demoralize students, undermine professional expertise and open the floodgate to appeals. Realistically, the gulf may not be so wide between proponents of the ‘connoisseur’ model of assessment, largely norm-referenced and based on ‘professional expertise’ and ‘pretty much impenetrable to the non-cognoscenti’ (Webster et al., 2000, p 73), and those calling for more explicit, pre-determined standards and criteria, and grading which is independent of the performance of other students. Rowntree (1989) argues that in practice it is naive to believe that assessors can ignore normative data when assessing the performance of a particular student against a particular criterion.

Student suggestions for improvement

The overwhelming general response from the students was that despite the practical problems in using and applying the grid, it was considered to be a well-conceived idea. They welcomed a more systematic marking process and clearly recognized the potential of the grid and what it was trying to achieve.

I think its aims and objectives are very good and it could help students a lot. (1G)

I just want to say that this is the perfect method to a lot of people that I’ve spoken to are like ‘I really don’t know what they want us to do with this coursework’ so if there’s really any way of getting the whole group at once to understand what you want with your coursework then via this grid it would be an excellent way to explain. (1B)

When confronted with the crude question: ‘Does the grid work in practice?’ the majority of the focus group participants said ‘no’ but it is clear from their other comments, already illustrated, that they recognized the potential benefits of the grid. On the whole, the students appeared remarkably cognisant of the implementation issues associated with criterion referencing and from this standpoint they made some pertinent suggestions for improvement.

Guidance to both staff and students on the grid’s application and use

The students expressed a strong desire to see the grid used on all modules. Linked to this, the students clearly felt that all of the staff needed to be committed to and trained in using the grid.
I think the lecturers need to understand that they should take this seriously because they are the people who are going to be marking the work. (IB)

They have to be taught the grid as much as we do. (1C)

It was also clear from some of the detailed descriptions of specific modules where the grid was used that the grid needed to be seen by the course staff as an integrated part of the course design and not just something tagged on at the end.

Clarifying the grade definitions by providing examples

Echoing Sadler (1987), there was also a prevailing consensus that the grade definitions needed further clarification, and many students felt that this could only be done through the additional provision of examples.

If you would, for example, give an example . . . this is what I call imaginative and comprehensive and give an example. (IB)

There should be some examples; it is hard to understand some of the criteria let alone apply it. (2H)

Something needs to be written, 'this piece of work would be given an ‘A’ for understanding of the question because' and you could see how it’s written. (1D)

You learn more from examples than you do from abstract explanations. (2H)

Where the focus groups did not agree (in fact there appeared to be two diametrically opposed views) was whether it is most helpful to maintain a level of consistency by always retaining the same wording from the main grid in every grid that is used or, alternatively, whether it would be better to adapt the wording each time to specifically relate to the individual task. To an extent there may be at least a partial overlap here with the distinction between giving clearer guidelines and prescribing content which has already been identified.

Active engagement in seminars

Further to the mere provision of exemplars, the focus groups also strongly supported, and in some cases suggested, seminars where the students could actively engage with the application of the grid criteria, both at the beginning of each module

Clarifying the grade definitions by providing examples

It could work, if they really would take you through it . . . I think every module should go through it quickly (1B)

and at the end of modules, after the assessed work has been returned

You should have a seminar which specifically gives us feedback on the assignment. (2F)

[and tutors could] say, 'Right, for the presentation what we really wanted is this' and given you an example of a really good piece of work, but demonstrated that, 'and then for the content and range . . . we wanted you to include'. (2D)

If he’d said, taken an example of a ‘C’, not the person but taken real examples of the assignment that we’d done and actually referred them back to this [the grid] and said, 'This is one that got an "A" and here’s an excerpt from it and this is what we think, why it deserved an “A”, it would make the grid seem real because it still seems very abstract. (2E)

Introduce the criterion-reference grid in the first year

A common and unanticipated suggestion was that the grid should be introduced in the first year. Not knowing that the original intention of the grid had been to establish a common standard for Advanced Level modules, the students argued, not unreasonably, that this raising of awareness of assessment criteria and what they mean would be much more appropriate in the first year.

If they had it in the first year then you might have a better idea of what to aim for. (2H)

It’s no use to us now in our second year to give us all this. If they did it in the first year . . . it would be so much clearer. (2H)

So you could start off on a good foot. So you could get into good habits. (2B)

. . . if this is going to be key to your time at university certainly in the way things are marked and you are fed back then more time needs to be given to it in the initial stages so that you fully understand it. (1D)

If they had it in the first year then you might have a better idea of what to aim for. (2H)

COMMENT

The students were evidently keen to discuss assessment issues and thirsty for a more reliable and consistent
marking process, and many of the criticisms made by the focus groups moved beyond the use of the grid to criticisms of assessment practices in general. Educational literature repeatedly emphasises assessment as the most powerful influence on student behaviour, with the capacity to encourage either deep or surface learning. Assessment is a subject that students perceive to be of fundamental importance, about which they grasp the salient issues, and they are openly dissatisfied about the miscommunication we practise on the subject.

The students clearly recognized and accepted that individual staff members have a greater or lesser inclination towards the ‘connoisseur’ approach to assessment. Student dissatisfaction and frustration surfaced when students experienced a lack of parity between the published criteria and the feedback received. This dissonance arguably promotes the creation and maintenance of a ‘hidden curriculum’ (Sambell and McDowell, 1998) and undermines trust in the assessment process. Brown et al. (1997) suggest that trust is fundamental in achieving a developmental learning assessment process. As such, damage to student trust can inhibit students’ capacity to improve and, consequently, should be of serious concern to us all.

Substantial hurdles inhibiting the effectiveness of criterion referencing in general, and the grid in particular, are the problem of subjectivity and multiple interpretations of criteria and standards. Individual students interpreted not only the purpose of the grid, but also the criteria themselves differently. It is clear that the students did not readily understand or identify with the terminology used in the criterion descriptions. It is also apparent that some focus group participants found the required level of abstraction to link criteria with task too demanding. How can we realistically expect students to develop a constructive understanding when they are the ‘novice’ to the academic’s ‘expert’ (Eraut, 1994) and even the experts find it difficult to reach agreement?

Readily understood and recognized by the students, the issue of subjectivity and multiple interpretations is not an easy one to overcome. Nonetheless, we would argue that the process of defining and refining verbal descriptors enhances shared subjectivity between staff as well as resulting in the better articulation of criteria and standards. However, achieving a workable balance between precision and utility is a difficult feat. Realistically, a single-minded concentration on the construction of ever more comprehensive and precise verbal descriptors appears self-defeating, firstly, as the very precision of language and terminology progresses it away from common parlance and makes descriptors obscure and opaque to novice students. Secondly, increasing the quantity of explanation can make for unwieldy, less transferable and less usable descriptors.

Consequently, we would suggest that developing a shared understanding of assessment criteria and standards requires a multifaceted approach. Accordingly, an assessment criteria and standards framework encompassing both tacit and explicit knowledge transfer processes involving verbal descriptors, exemplars, imitation and practice appears to be worth pursuing. Such an approach seems to be sought and suggested by students as they struggle to find firmer footing within the changing tides of assessment criteria and standards.

CONCLUSION

Over the last decade, calls for public accountability have led to increasing interest in the development of robust assessment systems that portray actual rather than comparative student achievement. This research highlights student concern over, and awareness of, key assessment issues. Eager to find ways of achieving consistency and trust in assessment processes, students are keen to share understanding with assessors on standards and criteria, and, as a consequence, improve their performance.

Students regarded the criterion-reference grid as a well-conceived assessment tool that is, however, of limited practical use if presented on its own without the benefit of explanation, exemplars and the opportunity for discussion. The imprecision inherent in verbal description requires consideration be given to other ways of achieving shared understanding on criteria and standards. The grid in its present quasi-scientific form has incorporated too great an assumption about the nature of the knowledge to be transferred and our ability to transfer it. Plausibly, this may involve looking at the grid as a process tool, facilitating shared understanding between staff and students, thus playing a key part, but only a part, in a multifaceted framework of assessment processes rather than as a stand-alone tool for explicit verbal description of standards and criteria.
NEXT STEPS

In many ways this research has illuminated the complexity of the assessment process. However, whilst it seems naive to anticipate a completely sound assessment framework, it is possible to visualize a more definite framework of assessment processes encompassing a multiple, composite approach. This approach would not only enhance the specification of standards and criteria, but also facilitate the development of a common understanding not just between staff and students, but all stakeholders in the assessment process.

Accordingly, the next step is to introduce the grid within a framework of explanation, practice, discussion and exemplars on a large (300+ students) Business Studies module, and monitor and evaluate student and staff reaction. The authors would welcome correspondence with any others engaged in a similar venture.

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Improving students’ learning by developing their understanding of assessment criteria and processes

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Improving Students’ Learning by Developing their Understanding of Assessment Criteria and Processes

CHRIS RUST, MARGARET PRICE & BERRY O’DONOVAN, Oxford Brookes University, Oxford, UK

ABSTRACT This paper reports the findings of a two-year research project focused on developing students’ understanding of assessment criteria and the assessment process through a structured intervention involving both tacit and explicit knowledge transfer methods. The nature of the intervention is explained in detail, and the outcomes are analysed and discussed. The conclusions drawn from the evidence are that student learning can be improved significantly through such an intervention, and that this improvement may last over time and be transferable, at least within similar contexts. This work is a development within a longer and ongoing research project into criterion-referenced assessment tools and processes which has been undertaken in the pursuit of a conceptually sound and functional assessment framework that would promote and encourage common standards of assessment; that project is also summarised.

Introduction

Within Higher Education there is an increasing acceptance of the need for a greater transparency in assessment processes, and moves have been made to make methods of assessment clearer to all participants. This paper is concerned with the extent to which students understand these processes and how we might improve their understanding of them. It presents the development and planning of a two-year project involving the transfer of knowledge of the assessment process and criteria to students in a variety of ways; in particular, through a structured process involving both tacit and explicit knowledge transfer methods. The aims of this project were to improve the students’ performance through enhancing their ability to assess the work of others and, in consequence, their own work, against given marking criteria. The initial findings of the first year of the project, the methodology and its background were first reported at the...
8th Improving Student Learning Symposium in Manchester, England, and first published in the conference proceedings (Price et al., 2001). The success of the project, and a replication of the exercise with a second cohort the following year, has now been evaluated from a number of perspectives, the most important of which being by gauging the subsequent effect on the students' performance. A further evaluation of the longer-term effect on performance has also been carried out on the first cohort.

Background

This work is a development within an ongoing research project into criterion-referenced assessment tools and processes, which has been undertaken in the pursuit of a conceptually sound and functional assessment framework that would promote and encourage common standards of assessment. The earlier findings from this larger project have informed the development of this research and have already been reported elsewhere (Price & Rust, 1999; O'Donovan et al., 2001), and are summarised below.

Context

The research project into criterion-referenced assessment tools and processes commenced in 1997 against a background of growing national concern in the UK about marking reliability, standards and calls for public accountability (Laming, 1990; Newstead & Dennis, 1994). At a national level within the UK compelling pressure was beginning to be applied to higher education institutions to maintain high academic standards (Lucas & Webster, 1998). This pressure has been escalated over the last few years by an apparent fall in standards suggested by the rise from 25% to 50% in the proportion of good degree results (upper second-class and first-class degrees). This trend has been compounded by the rapid expansion of student numbers and a drastic cut in the unit of resource for UK higher education. The debate about standards was further informed by a national discussion on generic level descriptors (Otter, 1992; Greatorex, 1994; Moon, 1995; HEQC, 1996) which were seen by some as a means of establishing common standards. The focus of this discussion tended to be on the need for explicitness, with the implication that if all were made explicit this would be sufficient to establish standards. Little, if any, mention was made about involving students in the process.

In response to this, the Quality Assurance Agency (QAA) embarked on a new quality assurance system, with three distinct elements—benchmark standards, programme specifications, and a national qualifications framework—all intended to bring about the establishment of explicit degree standards. However, it is interesting to note that when the benchmarks were published in May 2000 they were retitled benchmarking statements. Arguably, this change recognised the failure of the process to clearly define explicit standards for all subjects. At a conference on Benchmarking Academic Standards (Quality Assurance Agency, 17 May 2000), Chairs of the QAA subject panels commented on the difficulties of defining threshold standards and using language which meaningfully conveyed level. However, the benefit realised by the academic community from the process of drawing up the statements was emphasised. Professor Howard Newby stated:

I would certainly want to assert the value to self-understanding in disciplines of debating the basis on which the discipline is conducted and what the
students need in order to be able to participate in the community of scholars who practise it. (QAA, Benchmarking Academic Standards Conference, 17 May 2000)

First Steps

The initial impetus to address the issues in this project came from an external examiner for the Business Studies undergraduate programme at Oxford Brookes University, who was a strong proponent of criterion-referenced assessment as a means of ensuring consistent standards between markers. Another external examiner was concerned to ensure common standards between modules. As a consequence of this, a common criteria assessment grid was developed for the Business School and first piloted in the academic year 1997-98. The grid has 35 criteria plotted in matrix format against grades resulting in 'grade definitions' detailing acceptable performance for each criterion at each. Staff select appropriate criteria for any given assessment to create a 'mini-grid' (see Figure 1 for an example). The main intention was to develop a comprehensive marking criteria grid to help establish common standards of marking and grading for Advanced Level undergraduate modules (those normally taken by second- and third-year students) across the Business programme, enabling consistency in marking and easier moderation. Furthermore, it was hoped that the grid would have the additional benefits of providing more explicit guidance to students (resulting in better work), and making it easier to give effective feedback to the students.

Staff and Student Views

The use of the grid has been evaluated through the views of staff and students as well as noting the feedback from external examiners.

The main conclusion of the initial paper (Price & Rust, 1999) was that, at least in its present form and usage, the grid failed to establish a common standard—different tutors having taken the grid and used exactly the same grade definitions for a basic module (one normally taken by first-year students) and an MBA module apparently without any difficulty. However, the paper further concludes that the findings had demonstrated that the use of such a grid could provide other real benefits. It could help to raise the quality of marking through greater consistency in marking both for a team of markers and for an individual marker, but this was more likely to be the case if the tutors had discussed the grid together before using it. It could also help provide, from the tutor perspective, more explicit guidance to students and thus potentially improve the quality of their work. However, it appeared that this was only likely to be true for the most motivated students unless time was spent by tutors discussing with students the meaning of the criteria terms and grade definitions. Using the grid could also raise the quality of feedback to students and assist in focusing the marker's comments.

The initial mixed findings reflected many of the issues associated with criterion referencing in the marking of more qualitative and open-form assessment. Whilst many would agree that criterion-referenced assessment appeals to our notion of equity and fairness, it is not without its pitfalls, not least of which is the potential for multiple interpretations of each criterion and grade definition by both individual staff members (Webster et al., 2000) and students.

The views of students were sought when they had experienced the grid on a variety of modules, and more detailed findings have been reported elsewhere (O'Donovan et al.,...
<table>
<thead>
<tr>
<th>CRITERION</th>
<th>A</th>
<th>B+</th>
<th>B</th>
<th>C</th>
<th>Refer/Fail</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Presentation of assignment</td>
<td>Shows polished and imaginative approach to the topic</td>
<td>Carefully and logically organised</td>
<td>Shows organisation and coherence</td>
<td>Shows some attempt to organise in a logical manner</td>
<td>Disorganised/incoherent</td>
</tr>
<tr>
<td>7 Attention to purpose</td>
<td>Has addressed the purpose of the assignment comprehensively and imaginatively</td>
<td>Has addressed the purpose of the assignment coherently and with some attempt to demonstrate imagination</td>
<td>Has addressed the main purpose of the assignment</td>
<td>Some of the work is focused on the aims and themes of the assignment</td>
<td>Fails to address the task set</td>
</tr>
<tr>
<td>27 Self-criticism</td>
<td>Is confident in application of own criteria of judgement and in challenge of received and begins to develop own criteria and judgement.</td>
<td>Is able to evaluate own strengths and weaknesses; can challenge received opinion strengths and weaknesses.</td>
<td>Is largely dependent on criteria set by others but begins to recognise own weakness.</td>
<td>Dependent on criteria set by others. Begins to recognise own strengths and</td>
<td>Fails to meaningfully undertake the process of self criticism.</td>
</tr>
<tr>
<td>28 Independence/Autonomy</td>
<td>With minimum guidance can manage own learning using full range of resources for discipline; can seek and make use of feedback.</td>
<td>Identifies strengths of learning needs and follows activities to improve performance; is autonomous in straightforward study tasks.</td>
<td>Can work independently within a relevant ethos and can access and use a range of learning resources.</td>
<td>Can undertake clearly directed work independently within a relevant ethos and, with some guidance, use the standard learning resources.</td>
<td>Unable to work independently, needing significant guidance on methods and resources.</td>
</tr>
</tbody>
</table>

(Please tick boxes)

Comment: ........................................................................................................................................................................

Marker: ................................................................. Mark: .................................................................

FIG. 1. Sample marksheet.
Students’ Understanding of Assessment

The students felt the criterion-referenced grid to be a well-conceived assessment tool and clearly recognised the potential of the grid and what it was trying to achieve. However, it was also seen as of limited practical use if presented in isolation without the benefit of explanation, exemplars and the opportunity for discussion. The need for such aids resulted from the identification of several issues undermining the easy application of the grid. These issues included the need to clarify the meaning of terms and phrases; subjectivity and multiple interpretations of criteria and standards; a lack of match between published criteria and the feedback received, arguably, suggesting the presence of a ‘hidden curriculum’ (Sambell & McDowell, 1998; Webster et al., 2000).

Implications

A common view of both staff and students was the need for discussion to support the use of the grid, between staff in the marking process, and between staff and students to enhance students’ understanding of the assessment process and as a result to improve their performance. Students also identified exemplars and further explanation as useful in making the assessment criteria more comprehensible.

When QAA experts are unable to make standards explicit after months of learned debate, we should, perhaps, begin to question the single-minded focus on explicit articulation of standards. It is difficult to relinquish the notion that academic standards can be documented and codified in such a way that they may be available for the passive consumption of all stakeholders in higher education. However, our research experience has been that, without active involvement through discussion and debate, the development of a common view on standards and level is problematic, if not impossible—even within a close-knit community of a single academic department. Obstacles to the transfer of knowledge about standards and assessment requirements are accentuated when such transference takes place with more ‘novice’ students undertaking modular courses in which they have very limited time to construct cohesive, ‘objective’, interpretations of assessment standards. Obstacles which are further heightened in a broad-ranging, multidisciplinary and discursive subject such as Business and management—a discipline in which many open-form assessments, i.e. essays and reports, are set on topics that are integrative in nature.

Consequently, we suggest that the imprecision inherent in passively presented verbal description requires that consideration be given to other ways of achieving shared understanding of criteria and standards. Arguably, in its present quasi-scientific form, the grid incorporates too great an assumption about the nature of knowledge to be transferred and our ability to transfer it.

Transferring Tacit Knowledge

Polanyi (1998) and Tsoukas (1996) among others, argue that the transfer of useful knowledge involves the transmission of both explicit and tacit knowledge. Consequently, a single-minded concentration on explicit knowledge and careful articulation of assessment criteria and standards is not, in itself, sufficient to share useful knowledge of the assessment process.

We conjecture that more complete or ‘useful’ knowledge of a particular assessment starts in the mind of an individual assignment writer. However, in the process of transferring this knowledge to others, parts of the knowledge can be difficult to articulate and consequently go ‘missing’ from the final communication. In Polanyi’s words ‘we
can know more than we can tell” (Polanyi, 1998, p. 136). Such missing knowledge can be described as tacit—tacit knowledge in this context being defined as something that we know but we find impossible or, at least, extremely difficult to express. Unlike explicit knowledge “that can be expressed in formal and systematic language” (Nonaka et al., 2002, p. 43) tacit knowledge is highly personal and hard to formalise. Deeply rooted in action and often in an individual’s commitment to a profession, tacit knowledge consists partly of technical skills based on professional experience, and in a more cognitive dimension, in our ingrained mental models, beliefs and perspectives (Nonaka, 1991). A type of knowledge that can be said to underpin the established normative, ‘connoisseur’ model of assessment—illustrated by the phrase “I cannot describe it, but I know a good piece of work when I see it”, most often likened to the skills of perfume or tea-blending and “pretty much impenetrable to the non-cognoscenti” (Webster et al., 2000, p. 73).

Knowledge of this kind is experience-based and can only be revealed through the sharing of experience-socialisation processes involving observation, imitation, dialogue and practice (Nonaka, 1991; Baumard 1999). So over time discussion and shared experiences of marking and moderation among staff enable the sharing of tacit knowledge, resulting in more standardised marking (Saunders & Davis, 1998). It follows that inviting students into this shared experience should also enable more effective knowledge transfer of assessment processes and standards to them.

The Research Project

Aims of the Project

The primary aim of the project was to improve student performance, through a process that would confirm our understanding that the value of tacit knowledge and its role in the learning process has been relatively neglected in the current climate of higher education, and that this neglect has been detrimental to student learning. We aimed to increase students’ knowledge of assessment criteria and processes, and as a consequence, improve student performance through a structured intervention devised for a large (300 +), basic (first-year), undergraduate, Business module; an intervention that placed increased emphasis on the tacit knowledge transfer processes of practice and imitation to achieve shared understanding by engaging students in a series of activities that combined discussion of exemplars and marking criteria, marking exercises and self-assessment. The effectiveness of activities involving marking exercises and peer marking have also been supported by claims from the USA (Nelson, 1994) and studies from the UK (Forbes & Spence, 1991; Hughes, 1995); studies that have shown significant subsequent improvement in the work of students involved both in marking exercises and peer marking.

Intervention Design

The intervention took place in the final three weeks of the students’ first term on a Business degree programme. It involved students in preparation work, participation at a workshop, and the submission of a self-assessment sheet, along with their coursework to be handed in at the end of the first term (three weeks after the workshop).

The detail of this intervention was as follows:

(a) A week before the workshop all students on the module were provided with two sample assignments and mark sheets including assessment criteria and grade
definitions. Students were asked to individually complete the mark sheets, providing a grade, marks and rationale/feedback for each of the assignments before coming to the workshops.

(b) Workshops (90 minutes long) were offered to all students in groups of 40. (Student attendance at these workshops was optional.) The workshops were structured in the following way:

(i) student discussion in small groups of their initial individual marking of the two sample assignments;
(ii) feedback of small groups' agreed grades and rationale to plenary;
(iii) tutor-led comparison of provided rationales with criteria;
(iv) tutor explanation of each criterion;
(v) small groups review assessment and grade in light of tutor explanation;
(vi) final report from small groups to plenary of grade for each piece of work;
(vii) tutor provided annotated and marked versions of samples and discussed tutor assessment and mark.

The small group discussions allowed the student to compare and justify their initial assessment of the work against that of others as well as allowing the declared grade to be the responsibility of the small group. However, the students were asked explicitly not to change their initial grading on their individual sheets.

(c) Three weeks later, students submit their coursework along with a completed self-assessment sheet. There was no indication on the coursework whether students had participated in the intervention or not.

The mark sheets used for the sample assignments, the tutor's actual assessment of the students' submitted work and for the students' self-assessment were the same, incorporating comments, a module assessment grid, a grade and a mark.

Data Collection

The intervention was designed to run twice, in successive years, with two different cohorts on exactly the same module. Each year it was carried out in exactly the same way, so that it would provide comparisons between student participants and non-participants at the workshops for quantitative and qualitative analysis. Further data were also collected from two other modules. The three modules concerned had similar assessment methods and were as follows:

- Module 7009—a first-year Introduction to Business module on which the intervention took place;
- Module 7508—a large first-year Introduction to Business Economics with assessment taken by the students prior to the assessment on Module 7009;
- Module 7026—an advanced second-year Business module taken one year after 7009.

Measuring and Comparing Student Performance

Quantitative measurement of student performance was undertaken using three comparative statistical measures.

(i) A baseline comparison—comparison of the assessment performance of the participants at the assessment workshop with the non-participants on a module (Module
7508) taken before the intervention was carried out. This comparison was carried out in two successive years (1999 and 2000) with successive cohorts;

(ii) A treatment comparison—comparison of the assessment performance of the participants at the assessment workshop with the non-participants on a module (Module 7009) within which the intervention was carried out. This comparison was also carried out in two successive years (1999 and 2000) with the same successive cohorts as in (i);

(iii) A transfer comparison—comparison of the assessment performance of the participants at the assessment workshop with the non-participants on a module (Module 7026) taken by both groups one academic year later than Module 7009 (in 2001)

Data preparation was carried out in Microsoft Excel. The between-group comparisons used independent group t-tests and were carried out in AlStats. Because of the number of t-tests used \( n = 5 \) a Bonferroni correction was applied to convert the 5% significance level (one-tailed) to the 1% level (one-tailed). In advance of the study a significance criterion of 0.01 (1%) was set. The effects ratio (mean difference divided by standard deviation) was also calculated for each comparison with 0.5 considered a moderate effect (Cohen, 1969).

### Gauging Student Knowledge of the Assessment Criteria and Processes Prior to the Intervention

In order to test out the students' initial knowledge of the assessment criteria and processes, it was necessary to test their application of the criteria. Through the use of the sample assignments the students' initial attempts at marking were collected via the completed mark sheets from those students who participated in the workshop. The mark sheets provided the grade (A-C or F) and mark (%) awarded, their justification for the mark, which identified strengths and weaknesses of the work, and a completed assessment grid showing their application of the marking criteria and grade definitions in marking.

At the workshop student contribution was monitored through non-participant observation. Notes were taken on the grades awarded by the students for the sample assignments following small group discussion as well as the justification provided for those grades.

### Gauging Student Perceptions of the Workshop

Using a questionnaire with position statements and Likert scales of agreement/disagreement, students were asked to evaluate the workshop in terms of its effect on their understanding of criteria and assessment processes and their levels of confidence in completing their assessed work and applying the criteria to their own work.

### Student Ability to Self-assess

On Module 7009, after the intervention, when students submitted their coursework for assessment they were also required to submit a self-assessment of their work. It was the intention of the researchers to compare the student's self-assessed grade overall and for each criterion with that of the marker to provide an indication of the student's understanding of level. This was only in fact possible with the second year cohort (see below).
Staff Perceptions

In the first year of the project, using informal interview/unstructured discussion, the seminar tutors (also the first markers of the assessed coursework) were asked about student response to the intervention and their perceptions of how well the students had done the assessed coursework. In particular, those who had taught on the module in the previous year were asked to comment on how the work compared.

Methodological Issues

Participant Self-selection

The participating students were self-selected due to the non-compulsory nature of the assessment workshop. There was therefore a concern that these student participants might not be representative of the cohort population. Results could be easily skewed with the participant sample differing from the population in key attributes such as ability or motivation.

The results were tested in two ways: firstly, the standard deviation of the marks for each group was calculated and compared to surface any anomalies. Secondly, the marks achieved by the participating students were compared against those of the non-participating students on a piece of coursework on another module (Module 7508) submitted prior to the workshop sessions (a baseline comparison).

Data Contamination from Exemplars

Identifying the sample of students that had taken part in the assessment workshops was straightforward. However, it must be recognised that the non-participant remainder of the
cohort were not completely isolated from the process. All students were issued with the original sample assignments for their initial preparatory assessment and, more importantly, it is inevitable that the tutor-marked and annotated versions of the samples will have been widely circulated (although only given directly to workshop participants). So although many of the cohort did not take part in the knowledge transfer process within the workshop, many may have had the benefits of exemplars of the standards. The effect of this may well have been to diminish any differences between the performance of the participating sample and the rest of the cohort. However, this serves to heighten the significance of the active involvement of the participating students in the difference that did emerge between the two groups.

**Norm-referencing in Marking**

There is a potential problem in using student assessment results as a measurement of student performance due to the tendency of assessors to norm-reference which remains the dominant model within higher education and 'naturally' preferred by most markers (Professor A. Wolf, SHRE Assessment Network Meeting, 13 March 2000). Even though the application of criterion-referenced marking should supplant the application of norm-referenced marking it seems that the latter remains an influencing factor in marking whichever is used (Professor A. Wolf, SHRE Assessment Network Meeting, 13 March 2000).

The difficulty posed by norm-referencing within quantitative analysis of assessment results is that if assessors mark comparatively to an average, say of 55%, then inter-module comparison and longitudinal comparison of results can be meaningless. The numerical description of 55% simply becomes the portrait of average whilst the 'real' average performance of two different cohorts could be very different. Consequently, numerical descriptions can confer delusions of accuracy. Qualitative data from the markers about their perceptions of the quality of the students' work help counter this effect of norm-referencing.

**Student Self-assessment**

In the first year of the project, because of what with hindsight can be seen to have been an error in the methodology (i.e. the assessment sheets on which both the students self-assessed and then the tutor assessed were photocopied for use on this research project, prior to their return to the student with their work), it was not possible to tell which assessments had been made by the student and which by the tutor, making any analysis impossible. This error was rectified in the second year.

**Findings**

**The Effect on Performance Standards—Results of Statistical Analysis**

The major findings of this study, repeated over two years, are that the participants at the assessment workshop subsequently achieved significantly better results in their assessed coursework. Whilst comparison of the performance of participants and non-participants on a module prior to the intervention showed no significant difference in the performance of the two groups. Furthermore, one year later, the participants of the first cohort of the study were still showing significantly better results than the non-participants.
Students' Understanding of Assessment

TABLE 1. Cohort 1

<table>
<thead>
<tr>
<th>Module</th>
<th>Participant (mean)</th>
<th>Non-Part (mean)</th>
<th>df</th>
<th>p</th>
<th>Mean difference</th>
<th>Std dev.</th>
<th>Effects ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>7508</td>
<td>58.6</td>
<td>57.8</td>
<td>191</td>
<td>0.56</td>
<td>0.7606</td>
<td>9.08</td>
<td>0.08</td>
</tr>
<tr>
<td>7009</td>
<td>59.78</td>
<td>54.12</td>
<td>292</td>
<td>0.00001</td>
<td>5.649</td>
<td>9.49</td>
<td>0.6</td>
</tr>
<tr>
<td>7026</td>
<td>57.91</td>
<td>51.3</td>
<td>182</td>
<td>0.004</td>
<td>6.604</td>
<td>11.91</td>
<td>0.55</td>
</tr>
</tbody>
</table>

Note: Participants = 151, Non-participants = 143.

TABLE 2. Cohort 2

<table>
<thead>
<tr>
<th>Module</th>
<th>Participant (mean)</th>
<th>Non-Part (mean)</th>
<th>df</th>
<th>p</th>
<th>Mean difference</th>
<th>Std dev.</th>
<th>Effects ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>7508</td>
<td>58.67</td>
<td>55.75</td>
<td>133</td>
<td>0.06</td>
<td>2.92</td>
<td>9.32</td>
<td>0.31</td>
</tr>
<tr>
<td>7009</td>
<td>59.86</td>
<td>52.86</td>
<td>319</td>
<td>0.00001</td>
<td>6.9716</td>
<td>10.03</td>
<td>0.69</td>
</tr>
</tbody>
</table>

Note: Participants = 152, Non-participants = 169.

As can be seen from the tables of results (Tables 1 and 2), with both cohorts there was no significant difference between the participant and non-participant groups in the baseline comparison on Module 7508, where the assessment was submitted before the training took place. (And power analysis of these figures provides power estimates in both cases which show the design was almost certainly adequate to have identified differences should they have existed—Power (5%) = 93% and 76% respectively.)

After the intervention, there is a significant difference between the results of those participating in the workshop and for those who did not, for both cohorts \((p < 0.01)\) on the module (7009) on which the intervention took place, and that significance can still be identified one year later for the first cohort \((p < 0.01)\) (on module 7026) although the figures may suggest, not surprisingly, a minor reduction in the effect. This is also reflected in the effects ratios, 0.6 and 0.69 in the module on which the intervention took place (7009), and 0.55 in the module one year later (7026).

The Results of Student Self-assessment and Comparison of their Accuracy

All students were asked to complete and submit a marking criteria grid, grading their work for each of the five criteria as well as giving an overall grade, but in the first year the data was not usable (as has already been explained above). In the second year, however, 140 (92%) workshop participants and 150 (89%) non-participants complied with the request and gave themselves an overall self-assessment grade. Only a somewhat disappointing 68 (45%) participants and 38 (22%) non-participants additionally graded themselves for each of the individual criteria. The students' self-assessments were then compared with the grades given by their tutors, and a comparison made between the workshop participants and non-participants to see if the former were able to be more accurate in their self-assessment (Table 3).

To make a straight comparison of the accuracy of the self-assessments, a simple numerical system was devised, whereby zero indicated that student and tutor had put the same grade, one indicated a one-grade difference (plus one if the student's grade was higher, i.e. an overestimate; minus one if the student's grade was lower, i.e. an
underestimate), two indicated a two grade difference, etc. (the range of possible grades being A, B+, B, C, F).

Comparison of Overall Self-assessment Grades with Tutor Grades

An initial comparison of the overall grades given by the students in the two cohorts is disappointing, because there does not seem to be any great difference; in fact, with 54 (39%) participants and 68 (45%) non-participants accurately predicting their grade and 27 (19%) participants and 30 (20%) non-participants only over-predicting by one grade, it looks as if, if anything, the non-participants are more accurate. However, on closer examination it is interesting to note that if we compare those either overestimating by two or three grades, and those underestimating, there is a clear difference. Although these are quite small numbers, especially in the case of non-participants, there is a distinct pattern in these results, with a higher percentage of non-participants overestimating the grade and a higher percentage of participants underestimating the grade. Given the suggestion that has been made in some of the literature on self-assessment that women may be more likely to underestimate their true worth while males may be inclined to overestimate (Thomas, 1990; Gibbs, 1991), it is also interesting to note that while amongst the participants there appears to be no identifiable difference between the males and females, with the non-participants there does seem to be more male overconfidence, 41% compared to 29% overestimating and 23% compared to 6% overestimating by two or more grades. Comparison of the two male groups shows male non-participants more confident than participants—41% overestimating their grade compared to 25%, and 23% compared to 7% overestimating by two or more grades. Conversely, 13% of male non-participants graded their assignment lower than their tutor in comparison to 35% of male participants. Females showed less of a startling difference—25% female non-participants underestimated their work compared to 33% of female participants—but nevertheless, participants were still more likely to underestimate.

Comparison of Individual Criterion Grades

As has already been stated above, the numbers of students who graded themselves for each criterion was disappointingly small [68 (45%) participants and 38 (22%) non-participants] which makes it impossible to claim any statistical significance for the results. However, the same pattern of more overestimation by non-participants and underestimation by participants is evident. And it is perhaps interesting to note that the
The Extent of Student Understanding of Assessment Criteria and Processes

**Applying Criteria**

The students' initial attempts at grading, and the workshop discussion, showed that they exhibited more confidence in applying certain 'visible' criteria, such as structure, presentation and referencing. These criteria were used extensively as justification of the grade awarded by individual students on their mark sheets and by the small groups in the workshop. Conversely, the students found difficulty in applying more 'invisible' criteria such as analysis, evaluation, etc. There was a deep reluctance to use these criteria at the start of the process. Even when they were mentioned in the justification of the marks, their application was weak. Following explication of the criteria the students in the workshops then began to apply the 'invisible' criteria but still found it difficult to use them to justify marks. Many students commented on how difficult they found the marking task and their fear at exposing a lack of ability to assess.

**Understanding of Level**

In the first year, the evaluation of students' ability to assess was based on an analysis of 116 mark sheets and marking grids completed and handed in by 116 of the 151 students who participated in workshops.

The initial grades taken from the mark sheets for each of the sample assignments showed that almost every student had correctly identified the excellent and poor piece of work relative to each other. However, for each piece of work there was a range of grades awarded.

Assignment One had been graded as an A by the tutors, while the profile of marks awarded by the students is as shown in Table 4.

Assignment Two was graded as C by the tutors and the students' assessment showed slightly more alignment, with the profile of marks awarded by students as shown in Table 5.

After initial group discussion in the workshop, several groups were in line with the then unknown tutor grading (it should be noted that one might expect the more 'extreme' individuals to be moderated out by the group process). Later in the workshop, following tutor-led discussion and group review, a further 8 out of 39 groups shifted their grades.

<table>
<thead>
<tr>
<th>TABLE 4. Student grading of Assignment One</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
</tr>
<tr>
<td>---</td>
</tr>
<tr>
<td>34 students (29%)</td>
</tr>
<tr>
<td>(3 students did not grade this assignment)</td>
</tr>
</tbody>
</table>

(Graded A by the tutor)

<table>
<thead>
<tr>
<th>TABLE 5. Student grading of Assignment Two</th>
</tr>
</thead>
<tbody>
<tr>
<td>B +</td>
</tr>
<tr>
<td>-----</td>
</tr>
<tr>
<td>1 student (0.9%)</td>
</tr>
<tr>
<td>(3 students did not grade this assignment)</td>
</tr>
</tbody>
</table>

(Graded C by the tutor)
to the still unknown tutor grading. None of the groups shifted away from tutor grading. It is interesting to note that students graded more conservatively than tutors did, even after involvement in the series of structured activities. This was more noticeable at the higher level than the threshold pass. This conservatism may have been as a result of a lack of confidence in applying the criteria or an expectation of higher standards.

Student Perceptions

Feedback from students indicated that they viewed the workshop very positively. They felt that the activities and discussion had contributed ‘a lot’ to their understanding of marking criteria and their assignment. Also, generally, they felt more confident about their assignment preparation, although a small minority stated that they felt less confident after the workshop, because although they better understood the level required to pass, they were concerned about their ability to meet it. Many students requested that the workshop be scheduled earlier before they undertook any coursework on other modules.

Markers, Perceptions

In the first year of the project, markers perceived the standard of student coursework on the module to be higher than that of previous years but there were indications of convergence of style and structure of the student work. The scripts were not separated for marking and the markers were not aware which of the students made up the participating sample. The markers could only form an overall impression of standard rather than improvement of particular students’ work.

Discussion

Countering an Over-reliance on Explicit Knowledge

The move towards greater transparency in assessment processes has been founded on the articulation of standards, levels and criteria for assessment in written format. The provision of information in such a format was considered sufficient to increase participants’ understanding of the processes. This assumption also underpinned our initial attempts to achieve more effective and resource efficient knowledge transference of assessment standards and criteria solely through explicit articulation—embodied in a common criteria assessment grid.

However, in light of the limitations and difficulties encountered by both staff and students in their use of the grid (Price & Rust, 1999; O’Donovan et al., 2001) which arguably echo the experience of the QAA in seeking to establish benchmark standards, such assumptions about the transfer of knowledge of assessment processes need to be questioned. Both the QAA’s failure to establish (through subject benchmarking) explicit standards, and the grid’s limitations, may lie with the assumption that all aspects of assessment standards can be articulated and made explicit. An assumption that furthermore does not fit comfortably with the application of standards through the use of the traditional assessment model that relies on a normative, connoisseur approach—a connoisseur approach undertaken by those that regard “assessment as akin to wine tasting” (Webster et al., 2000 p. 73). Such an approach appears to rely on a relationship between student and tutor developed over time to achieve the transfer of knowledge, both explicit and tacit, from novice to expert (Eraut, 1994); a transfer process that takes
place gradually, if at all, through complex social processes relying on feedback and discussion. However, even if one were to concede that in the past it may have been reasonably successful with a majority of students (and some may wish to challenge that), it is surely questionable whether in these times of increased student numbers, an increasingly diverse and 'part-time' student body and diminished resources all leading to reduced staff–student contact, such a process can be relied upon to take place automatically—and certainly not for all students.

Consequently, we suggest that in the context of today's higher education we must move away from sole reliance on the explicit articulation of assessment standards and criteria. To transfer useful assessment knowledge on which students can construct improved performance we must also involve the tacit domain.

**Improving Student Performance Through the Use of Explicit and Tacit Knowledge Transfer Processes**

*Improved performance of participants.* The intervention supported the transfer of tacit knowledge through the use of exemplars, marking practice and the opportunity for dialogue between staff and students to compliment explicit knowledge provided through the verbal explication of assessment criteria by staff and in written format embodied within the grid.

Whilst the intervention was constructed to use both explicit and tacit knowledge transfer processes, the findings from this project point to the significant factor in knowledge transfer and sharing being the socialisation processes focused on in the workshop. Given that all students were provided with samples of work (to mark) prior to the assessment workshop and annotated versions, given out at the workshop, were widely circulated among the whole student group, the workshop remains the distinguishing aspect of the process. Only those students taking a full part in all the activities were seen to perform to a significantly better standard than the rest of the cohort. Evidence from the literature on peer-marking using model answers (Forbes & Spence, 1991; Hughes, 1995) would suggest that it is being engaged with the process of marking as well as seeing examples of other work that significantly contributes to the students' subsequent improvement in performance.

It could be argued that the significant improvement in the participant group performance when compared with the non-participant group resulted because of their voluntary participation in the intervention process. Undertaking the baseline comparison using a module assessed prior to the intervention has provided assurance that there was no significant difference between the participants' and non-participants' performance prior to the intervention, thereby eliminating ability as a basis for self selection. Also, the repetition of the research with almost identical outcome eliminates a chance outcome. The remaining major variable that affects all the students is the intervention.

*Improved performance of whole cohort.* As noted in methodological issues, the documentation that was provided and circulated to the whole student group is likely to have benefited the non-participants as well as the participants. This supposition was borne out by the staff perceptions of the work of the whole cohort when they signalled that the standard of student coursework as a whole had risen from standards prior to the introduction of the intervention on the module. This being the case, the treatment analysis (comparing performance of participants and non participants) will have understated the effect of the whole intervention on the participants. The treatment comparison
of two groups will have been using data showing improved performance by both groups, albeit of differing value. So the improvement in the participants’ performance was probably greater than shown and the non-participants’ performance probably also improved. The difficulty in verifying improvement to the whole cohort lies within the problems associated with norm-referenced marking (as discussed earlier).

Long-term Effects

Albeit that evidence is based on only one cohort so far, there is encouraging evidence that a relatively simple intervention, taking a relatively small amount of course time, can have an effect which can last over time and be transferred. Admittedly the follow-up module was deliberately chosen because of the similarity of the nature of the assessment task and the assessment criteria used—so no grand claims for transferability can be made on this evidence, but it would be interesting to extend this research project to look at the performance of these students on very different types of assessment.

Self-assessment Accuracy

Disappointingly at first glance the data suggest that the intervention does not appear to make those who participated any better able or more accurate in their self-assessment compared with those who did not participate. However, on closer inspection this appears to be only part of the story. Plausibly, rather than making students more accurate in their self-assessment it may be that exposure to the exemplar assignments opened up their horizons to what really good work could look like and the potential for improvement. As a consequence of such exposure, we conjecture that participants underestimated the quality of their own work and that this seems to have had more of an effect on the previously over-confident male students. This supposition receives tentative confirmation from student perceptions of the intervention—although believing they a greater understanding of the level required of them, they also indic about their ability to achieve the standard.

Conclusion

The continued emphasis on explicit articulation of assessment criteria and standards is not sufficient to develop a shared understanding of ‘useful knowledge’ between staff and students. Socialisation processes are necessary for tacit knowledge transfer to occur. The traditional methods of knowledge transfer in higher education placed reliance on complex socialisation processes based on practice, imitation, feedback and discussion, often on a one-to-one or small group basis. For most institutions, reliance on these resource-intensive methods is difficult, if not impossible, in the context of today’s rapid expansion of student numbers and cuts in the unit of resource. It does appear, however, that through a relatively simple intervention incorporating a combination of explicit articulation and socialisation processes a considerable amount may be achieved in developing shared understanding and, consequently, in improving student performance—and that this improvement may last over time and be transferable, albeit possibly only in relatively similar contexts.
Students' Understanding of Assessment

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REFERENCES


Opinion piece: A possible student-centred assessment solution to some of the current problems of modular degree programmes

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As part of the ILT's commitment to equal opportunities, this journal is designed to maximize its accessibility to people with visual impairment.
The problems

There are good arguments, both philosophical and educational, in favour of well-designed modular programmes, but they also have certain problems. In particular, there is a danger that modularity 'compartmentalizes' the students' attitudes to what they are learning, 'ticking-off' modules as they are taken, and failing to see, or look for, a connection between them.

Although the philosophy of modularity argues that it empowers the student to 'design' a curriculum that is coherent and relevant to them, there is at least anecdotal evidence from the long, and well-established, modular course at Oxford Brookes University that reasons for module selection often have little to do with coherence and relevance. 'Never do two modules with course-work projects in the same term', is a common piece of advice handed down by more experienced students; choosing modules simply to be with your friends, or because they do not clash with part-time work commitments also seems to be commonplace.

Another criticism, of all courses whether or not they are modular, is that there is too much summative assessment, and this is likely to be even more true of modular courses with each module having at least one assessment, and probably more. Formative assessment, however, which arguably should be happening as often as possible, is likely to not be happening enough – partially because of the shortness of time in a module, and also (in the UK at least) because of staff workload, and the rapid increase over the last 15 years in the staff:student ratio.

Personal tutor systems have also often been a casualty of the increase in student numbers, and arguably have even more problems anyway in modular programmes in which the student may well never be taught by their tutor, and there may be little or no contact between the student and the tutor outside the personal tutor relationship.

One possible solution to the problems of fragmentation in modular
courses is to create systems in which the student takes responsibility for tracking and recording their learning. Over the past decade or so there have been various attempts in a number of UK universities to introduce student profiling, or personal records of achievement. The concept of personal profiling was supported by the Dearing report (NCIHE, 1997), and the plans of the Quality Assurance Agency (QAA) have now given fresh impetus to the idea in their proposals for progress files. The evidence of success in these schemes is patchy, however. The major problem repeatedly seems to be that, although those students who do engage with the process invariably find it beneficial, for a variety of reasons, and can even be brought back to wax lyrical to incoming first-year students, the majority of students do not engage with the process until it is really too late, if at all, because they do not initially recognize the relevance or value of it sufficiently to invest the time.

The possible solution

If the analysis offered so far is accepted as accurate, and the need to address the problems identified is agreed, I would like to invite the possibly sceptical reader to curb any immediate criticism to the proposal that follows and be prepared to contemplate a radical new approach. The proposal is based on the premise that potentially all the problems identified above could be overcome if summative assessment were to be disaggregated from individual modules — in other words, modules cease to be linked to credit — and students were made responsible for the accumulation of a portfolio of evidence that they have met the intended learning outcomes for the programme, and for getting this evidence assessed. In the UK, the programme specifications that are soon going to be required by the QAA would contain the detail of these outcomes.

Imagine a system in which the student chooses taught modules, and/or other ways of learning (resource-based packages, distance learning mode, whatever), in which they have learning opportunities including activities that are formatively assessed in a variety of ways — by the tutor, by peers, by computer, by themselves even, with a model answer possibly — but there is no summative assessment. The work produced by the student is accumulated and stored in a box file, or whatever, and when the student thinks that from the work they have amassed they can select sufficient evidence to demonstrate that they have satisfactorily met one or more of the outcomes they submit the evidence to an accredited specialist assessor in the particular subject being assessed. This could be restricted to, and/or required for, certain outcomes, at pre-specified assessment points in the year. This assessed work becomes a developing portfolio of summative evidence of
the achievement of the student, organized and referenced against the course's learning outcomes (programme specifications). Evidence submitted for assessment could also be taken from beyond the formal curriculum — work experience, student union office, etc. — and this would explicitly recognize and value these kinds of activity.

Obviously very clear indicative guidelines would need to be given at the start on the detail of what sufficient evidence for a particular outcome might look like, as well as induction to the assessment system as a whole. And all programmes would also have to make explicit to the students where they would be given the opportunities to learn and gain contributory evidence for each of the outcomes through detailed module descriptions, skills matrixes (Rust, 1997), etc.

**The potential benefits**

This system would put into practice much of the current rhetoric about student-centredness in a number of ways. The student would become responsible for the management of their own assessment. They would be responsible for the choice of modules (and possibly also mode of study) that best gives them the opportunities to learn and demonstrate the required outcomes — in other words, they would have a much greater stake in devising their curriculum. Choosing modules for non-educational personal reasons would become more overtly problematic and potentially risky. The system would also require them to actively look for linkages and relationships between the modules they take. It would actually make positive use of the fact that from the students' point of view, assessment essentially defines the curriculum.

Learning activities are more likely to be seen as exactly that, activities for learning. Assessment would start to be seen by students as an integrated part of the learning process, clearly linked to the learning outcomes, rather than just a series of hurdles to be jumped and forgotten.

This system should also significantly reduce the summative assessments, at least in terms of the number if not the actual amount of work submitted. With reduced numbers of assessment points and specialist assessors, overall staff time and workload would probably be reduced and certainly should be no greater; it would simply be redistributed, with more time hopefully spent on formative assessment, and funding of courses would need to be changed accordingly.

The question of validity — does an assessment task actually assess what it is intended to assess, or largely the ability to perform the assessment task — has long been a critical issue in assessment design. This system would ensure that the sole focus of the summative assessment would be on whether or
not the learning outcome has been met in whatever evidence the student chooses to provide. A linked and further advantage is that it would address the current anomaly that although the prevailing orthodoxy in UK higher education is now to describe all courses in terms of learning outcomes, assessment systems have not changed. Under current arrangements, rather than students having to satisfactorily demonstrate each outcome (which is surely what should logically be the case and would be if this proposal was accepted) marking still tends to be more subjective with the aggregation of positive and negative aspects of the work resulting in many cases in fairly meaningless marks being awarded with 40 percent still being sufficient to pass. The new arrangement would transparently couple learning outcomes and assessment in a way that both student and marker would understand.

In addition, a possible by-product of this proposal is that through the use of a limited number of specialist assessors it is not unreasonable to expect an improvement in marking standards and reliability – another issue that UK higher education is keen to address. In this regard, it would intrinsically link assessment to programme specifications even more overtly and totally than is expected in QAA's proposed quality framework.

This proposal would also arguably increase the amount of formative assessment because that is what all the learning activities undertaken by the student would become. Each would potentially be a source of evidence which the student may want to use, but in order to make that judgement the student would want to know what its quality is – in other words they will want feedback on it. In time, of course, this focus on compiling suitable evidence should significantly help to develop the student’s self-assessment skills – a key step in developing the autonomous lifelong learner that we are committed to. In freeing-up the linkage of assessment to specific modules this proposed system would also allow much more for development over time. The student could be allowed to take more than one term – and possibly the whole course – to develop sufficiently to be able to produce satisfactory evidence of a particular outcome.

A further argument for this proposal is that it might increase the chances of profiling and progress files working in practice. It would give a very definite reason for students to see their personal tutor – who might possibly be better renamed as academic advisors – to review their progress, consider whether evidence is suitable and sufficient for submission, plan future module choices, and generally discuss their portfolio development, and thereby the effectiveness of personal tutoring systems could be improved as well.

There is also a possible refinement to this proposed system that might be seen as yet another argument in favour; at the end of the student’s programme the student could be required to produce a final reflective commentary to the portfolio, which along with the portfolio is assessed
holistically. This would serve the same purpose as a synoptic module, or the capstone course common in the USA, for the student to draw their learning together from the total programme.

And a final argument is that portfolio development is increasingly being used as a staff development tool, and as part of many professions’ requirements for demonstrating continuing professional development, therefore the skills of portfolio development will be needed by graduates in the workplace – so for many this would be an additional contribution to their preparation for lifelong learning.

The problems

Nothing is problem free, and there would undoubtedly be a host of practical and logistical problems to be overcome in implementing this proposal. I believe, however, that these could almost certainly be overcome.

By far the greatest problem this proposal faces is that it is radical and unproven (to my knowledge – although institutions in the USA, such as Alverno College, Milwaukee and Rose-Hulman Institute of Technology, Indiana have, in different ways, quite radically placed assessment much more centrally in their curricula) and would require considerable change for any institution to implement it. Even a pilot study would need to be on quite a large scale; anything less than a whole field of study for a period of at least three years, and preferably five, would not really be a fair trial. This would need considerable commitment from senior management and all the faculty in at least one school, a significant investment in staff development and student induction, and the institution’s modular course regulations would obviously have to be changed to accommodate such a pilot.

But in fact, the component parts of this proposal are not that radical. Portfolios have a long history in fine art and graphic design, and their use in assessment has already spread to a range of other disciplines, in particular where work placement and/or skills development are involved, often in conjunction with learning contracts and profiles. GNVQs are a particular example of this, and for the growing number of UK students coming to university through a GNVQ route, the system proposed above would feel very familiar. With regard to staff expertise, apart from possible involvement in NVQ/GNVQ assessment, academic staff are increasingly having to deal with the accreditation of prior learning, including experiential learning (AP[E]L). The assessment in the system proposed above is essentially AP(E)L. And with regard to the curriculum, the necessary mapping of outcomes across a programme’s modules is no more complex than has been done for numerous problem-based learning courses around the world.
Conclusion

I believe the arguments in this opinion piece present a very strong case for a radical change in the assessment systems on modular courses, and that I have outlined a proposal for what that change might be – a change which offers a possible solution to a number of problems which modular degree courses currently face, has a number of potential educational benefits, and for which many of the necessary building blocks are already in use, albeit embryonically. At least, I hope this article stimulates creative discussion and debate, but hopefully some may be inspired to actually experiment with putting the proposal into practice. If so, I would very much like to hear from and possibly work with them.

Acknowledgement

An earlier version of this paper formed the basis of a keynote address to an ILT 'Expert-led' seminar on Assessment, and was presented at the 25th Improving University Teaching Conference at Johann Wolfgang Goethe University, Frankfurt, Germany, July 2000.

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Biographical note

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