Assessment for Retention and Learning: Design, Feedback and Quality

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Introduction

Assessment has a strong impact on students' study and performance (Ramsden, 1997, Black & William, 1998). This paper describes features of the assessment system in place at the Open University, UK, explains the functions that its design supports and outlines some of the practices used to ensure its quality and regular improvement.

The Context

The Open University, UK (OU), first established by Royal Charter as a university in 1969, is open to any student, whether they have formal qualifications or none, for the purpose of undergraduate study. Postgraduate taught masters students must have achieved a first degree, and our doctoral students – the only students who study on campus – provide evidence through their first degree and by interview, that they are likely to benefit from postgraduate research. In this context, my paper concentrates on examples of assessment from our taught programmes only, at undergraduate and postgraduate masters level. We have approximately 200,000 students studying these courses. Some courses are open to students in the European Union and elsewhere, notably our masters in Online and Distance Education which is open to students anywhere in the world and recruits students from countries such as Japan, China, Korea, Dubai, Turkey, Finland, among others.

The OU offers modular study for students, most of whom wish to study part-time, alongside work and other responsibilities. The OU was one of the first, large-scale distance teaching universities, but differed from many in that it emphasised the role of the tutor and local support for students. Each student is allocated to a tutor, who marks the assignments of students in his or her group – in size usually about 20, though numbers can be higher or lower depending on the module.

Over the last decade, the number of younger students – under 25 – has increased and now stands at approximately 15% of students. Students can select from more than 500 modules and accumulate credit towards undergraduate degrees in areas such as Arts, Law, Business, Childhood and Youth Studies, Language Studies, Science, Social Science, Maths, Computing & Technology, Health and Social Care. An undergraduate degree requires 360 credits and most modules are of either 30 or 60 credits in size, studied over a 20 to 30 week period approximately. Any student studying at least 30 credits in a year is now eligible – from 2012 – for a government loan, exactly as are other students studying at other universities in England and Wales.

The OU is regulated by the same agencies regulating the whole UK university system – the Higher Education Funding Council and the Quality Assurance Agency, and thus works within the same system of funding and quality assurance. This includes the QAA framework for assessment and the various benchmark statements and frameworks set out for postgraduate level courses, which the OU operates within.

Assessment Strategy

Although the design of assignments and the introduction of online marking and handling have led to great changes in the detail of the system, the broad features of assessment at the Open University have stayed remarkably consistent since the first cohorts entered in 1971. Figure 1 shows the key features.

Assessment component	Marker and system aspects	Weighting in module results	Type of assessment
Assignments at regular intervals throughout a module – students must submit on the deadline for each assignment but can have permission from their tutor to submit later	Continuous assessment, tutor marked, some computer marked in Science/maths/technology	Marks count towards pass/fail but can be small percent per assignment – all assignments together count usually 50% towards a module pass	Summative AND formative
End of module face to face examination OR examined component, e.g. project report	Marked under examination conditions – marker coordination and moderation of marks, overseen by an Examination & Assessment Board.	Marks count towards pass/fail and usually contribute 50% of marks towards a module pass	Summative, though some modules give feedback alongside the result

Figure 1: The main elements of assessment in taught modules counting towards qualifications at undergraduate and postgraduate level

This high-level strategy for assessment has proved very resilient, and is still in place today, inspite of the huge changes in what the university teaches and how it teaches it. This raises the question of the functions that the strategy achieves – why we continue to retain both continuous and end of module assessment in the ways set out in figure 1 – and how it has contributed to the success of the university thus far.

The functions served by the assessment strategy

First, regular assignments ensure that students make an early start on their studies. There is usually an assignment to complete within the first four to six weeks after the module has started. The assignment is usually compulsory, even if the marks do not contribute much to the final module result, so students have to try to achieve it and thus make a real effort to get into studying the module. Modules often last for between 20 and 32 weeks of study, and this is a significant time frame to maintain momentum and to effectively plan study alongside life roles.

Second, students receive a grade for their assignments which gives them information about how effectively they are achieving the learning outcomes of their module. The marks they receive contribute something towards their final mark, so they have a sense of achievement even from an early stage. This encourages them to continue studying.

Third, students receive two kinds of feedback from their tutor – they have a grade for the work, plus detailed comments on their script and a summary of their strengths and weaknesses on the assignment overall. Thus there is a strong formative element in the continuous assessment, enabling students to revise their thinking and even change the way they are studying.

Fourth, assignments help students to complete all the work required, by giving them regular goals to achieve, leading up to the examination at the end of the module. This breaks down the big goal of passing the module into a series of smaller and more manageable targets, which are to pass each assignment. Continuous assessment therefore supports student learning and helps students to study effectively as well as measuring the learning achieved at each stage.

Fifth, the end of module examination enables students to be tested on their understanding of the module as a whole, and to demonstrate that they have integrated knowledge and skills from all parts of the teaching. They may be asked to reflect on key theories or to apply their skills in new ways. End of module examinations can be a conventional 3 hour examination in a study centre, or a report that students submit at the end of their module, but which is marked by a tutor who does not know them and has been trained to mark to agreed standards for the examination. Scripts are often marked by two separate markers and large differences in their grades will be checked and moderated to an agreed grade. Tutors are required to confirm that the work is that of the student concerned, and examinations also use identity checks as a way of ensuring that there is no fraudulent practice.

This strategy of a combination of continuous summative and formative assessment, with summative examined work verified by a tutor but marked under examination conditions, helps to support student retention, effective and sustained studying, and good grades. However, within this broad design, a great deal of flexibility exists for module teams to design an assessment plan that fits their module aims and meets the needs of their students. The next section introduces an example that demonstrates how one module team has designed the assessment for their module, and takes us further into considerations of what makes for an effective design.

Assessment at the Level of a Module

Turning now to an example of how a particular module can be assessed, figure 2 shows the assessment design for a level 1(introductory) module which is compulsory for the honours degree in Business Studies. Figure 2 shows that students must pass (40% is usually the minimum pass mark) both the continuous assessment and the EMA in order to pass the module as a whole. Students begin studying this module in May, have a first assignment at the end of May and a further three to complete before the end of August, when they start work on a task that is assessed by the completion of a report of 2500 words, and which is the end of module assessment or EMA.

Assignment	Number of words	Deadline for completion	% of total marks for the whole module
01	500 (part I); 200 (Part II)	May 27	50%
02	1000 (Part I); 200 (Part II)	June 28	
03	1000 (Part I); 200 (Part II)	July 26	
04	1000 (Part I); 200 (Part II)	August 23	
End of Module Assessment (EMA)	2500	October 11	50%

Figure 2: An assessment design for an introductory module contributing 30 credits to a degree qualification

Assignment Design
This overview may look simple enough, and each task is not huge in terms of word length. Yet the module team have gone to great lengths to explain the strategy – overall and in detail for each assignment – and to communicate it to students, in an assignment booklet which is 34 sides of A4 and

approximately 13, 000 words in length. The first twelve pages cover general topics – how to pass the module, what the purpose of assignments on the module is, what tutors are looking for in marking students' assignments, how marks will be deducted for over-length work, how to reference the work of others, how to avoid plagiarism, and how to submit assignments online.

This documentation reflects years of experience in teaching at a distance, where modules may have thousands of students studying away from a physical teaching site or class where they can ask questions face to face. Accordingly, to help students fully understand how they are assessed, and to make sure they all receive the same information, a great deal of detailed guidance is provided. This is an essential foundation for fair and reliable assessment of students.

The bulk of the assignment guide however describes each of the tasks that students must complete for assignments 1 to 4. This is a crucial part of students' study materials and will shape their approach to study and to the assignments. First students are told the deadline for sending the completed assignment to their tutor, and the maximum word length. Then comes a description of what the assignment is intended to assess – what its purpose is in relation to the students' learning. Each assignment has two parts and students are told what the purpose of each is. For the first assignment, for example, this is as follows|:

Part I (90 marks)

Assesses Understanding of key learning points from [the module title] Book 1
Develops skills in comprehension and communication in writing
Develops basic skills of case study analysis in business studies

Part II (10 marks)

Rewards student contributions to the online forum led by their tutor
Assesses understanding of online forum discussions in their tutor group
Supports development of online learning skills

So – before reading the task students are given clear information about what the task is intended to achieve for them and their learning. Next comes the task for Part 1. A short case study is provided, based on a fictionalised business – 'Zinn's Burgers and Pizza'. The case study tells the story of a manager who is struggling with a failing model for a fast food restaurant, with added problems for his local branch where food wastage has escalated and extreme measures introduced to remedy the situation have made it worse not better. The manager has threatened to introduce surveillance cameras to catch those taking food from the restaurant and staff are resisting all efforts to cut down on food wastage. The case study provides approximately 1000 words description of the situation and a semi-role play situation for the assignment task, which is outlined below:

You have been asked by the manager of 'Zinn's Burgers and Pizza', to help him to understand and change his current situation. Using the case study information, and concepts from one session of [the module] Book 1, set out ideas that explain why he finds himself and his restaurant in the present situation and what he might do to improve the situation. Choose concepts and related readings from the module to prepare a short report in three parts:

a) an overview of the problems at the case study restaurant **(30 marks)**
b) an explanation of the concepts you have chosen that shows why they are useful and support your explanation of the problems at the case study restaurant **(40 marks)**
c) suggestions for how Zinn's might address their problems, drawing on this analysis **(20 marks)**

figure 3: an assignment task – Part I of the business studies module first assignment

So – by now students should be quite clear about their task for Part I – and how they should complete it, down to the structure into three parts, each of which carries a proportion of the 90 marks, which is also explained to them. Part II of the assignment is much briefer, and requires that students will have contributed to the discussions in the online forums led by their tutor. If students have not participated in at least two such discussions they will lose 5 marks. The 10 marks for Part II are for a 200 word summary of one online discussion and what they personally learned from it.

This outline of the first assignment tasks is then followed by a further page of guidance that stresses the need to use concepts from the module, to be concise and not to reproduce case study or course material verbatim. There is a definition of 'concept' and guidance on how to reference sources. Further guidance is also given on what the tutor will be looking for when he or she marks the student's assignment:

When marking your assignment, your tutor will check that you:

- Make it clear which concepts from Book I you are using
- Give a brief explanation/definition of these concepts
- Show how the concepts you have chosen are relevant to this case study
- Explain how these concepts may be useful in helping the manager understand and change the situation
- Explain how they would be most productive in helping him make a plan for the future.

Figure 4: what tutors are looking for when marking an assignment

The remaining three assignments for this module have a similar structure and amount of clear guidance, task setting and explanation. They also combine a kind of situated approach to the task – a concrete business problem or issue is described, to which students need to apply their learning of concepts and frameworks studied in the module. The third assignment for example asks students to explain the purpose of an income statement (profit and loss account) and a balance sheet, and to use examples of both to identify issues with a particular business.

Students are again given a case study, this time about 'Michael's Chairs' – a business started by an individual entrepreneur whose business is making oak chairs. Students are asked to think themselves into a role in preparation for writing a report. They are to imagine they are the accountant for 'Michael's Chairs' and to review the income statement and balance sheet of the company in order to identify strengths and weaknesses in terms of the overdraft and the need to pay off the bank loan taken out to fund the business. The aim of this approach is to engage students in an example that could be real and gets them motivated to think about the issue of financial control of a business and ensuring that it can be sustained. In order to answer such questions they must use financial tools introduced in the module, and demonstrate that they understand how to read a balance sheet, or an income statement – not in the abstract but in the context of an example that they can understand.

End of Module Assessment design

Once students complete the fourth and final assignment they then spend their last few weeks preparing a report of 2500 words which brings together their learning across all five books or sections of the module. This end of module assessment (EMA) will provide evidence of their understanding of the module as a whole and their ability to demonstrate critical thinking skills. The deadline for this work cannot be negotiated, and while the tutor does check that it is the student's own work, it is marked anonymously by a different marker, working to examination requirements. Students are again provided with the learning objectives for the EMA, advice on how to complete the EMA effectively and a reminder about referencing, avoiding plagiarism, and how marks contribute to passing the module.

Their task for the EMA is to read a short case study which describes a report on a business that has been successfully generating income of £10m annually, by recycling old mobile phones and computers. Students then complete three questions that require them to use academic study of the module in analysing the case study in areas such as human resource management, accounting, marketing, globalisation and ethics. Students have some choice in which areas they can focus on.

What makes for a good assessment design for a module?
The module whose assessment is described above was studied by over 5,500 students in 2009/10. It represents an effective approach to assessment for the reasons discussed:

- It is integrated into the content of the module, requiring students to apply what they have learned in their module, sections of which are clearly specified as required
- It requires students to study online in discussion with fellow students and gives them some (small) reward in terms of marks for doing so and for summarising discussion
- The tasks required are clearly and accurately described, in detail
- The number of words required and the marks awarded for each task are specified
- Guidance on how to complete the task is provided
- Criteria for marking are specified
- Learning outcomes are provided for each assignment and the EMA

It is important to stress that all modules at the OU are required to provide a list of learning outcomes, organised under four headings: knowledge and understanding, cognitive skills, key skills and professional skills. Modules also have to show where these learning outcomes are assessed, in order to ensure that by studying the module as a whole, all learning outcomes will have been achieved. Since a module is only part of a qualification, each module must specify its learning outcomes as a sub-set of the learning outcomes for the qualification – again to ensure that the qualification really does deliver the knowledge and skills that it claims to deliver. Students are given clear information about how each assignment tests the learning outcomes for the module, and about its contribution to their learning.

Feedback on Assignments

Two major research studies have demonstrated the importance of feedback to students; Hattie (1987) and Black and Williams (1998) report research showing that feedback can make a bigger impact on student learning than many other teaching inputs. Further evidence of the importance of feedback to students can be found in the findings of the UK National Student Survey (NSS), which is sent annually to each cohort of graduates from 364 UK further and higher education institutions, including the OU. The NSS 2011 surveyed over 406k students, including 18,369 OU students, of whom 10,972 (60%) responded. Overall satisfaction reported by these OU students remained at 93% and the OU maintained its position as third highest rated among UK higher educations institutions (HEIs) for student satisfaction with their studies. Students respond on a five-point scale: *definitely agree, mostly agree, neither agree nor disagree, mostly disagree, definitely disagree.* There is evidence that students based in UK HEIs are much less satisfied with assessment and feedback than with other elements in their study experience, but that Open University students give more positive feedback in these areas (see table1). The results of this national survey can be found on the Higher Education Funding Council's website at http://www.unistats.direct.gov.uk

	OU % agree (2011)	Higher Education Sector average % agree	OU Rank
The criteria used in marking have been clear in advance	87	73	2
Assessment arrangements and marking have been fair	89	74	2
Feedback on my work has been prompt	86	63	2
I have received detailed comments on my work	92	67	1
Feedback on my work has helped me clarify things I did not understand	83	61	1
Other issues			
Any changes in the course or teaching have been communicated effectively	88	73	4

The course is well organised and is running smoothly	90	72	3
Overall I am satisfied with the quality of the course	93	83	3

Table 1: National Student Survey results for 2011: OU compared with UK higher education institutions

Table 1 shows that a higher proportion of OU students are satisfied than are students from other HEIs, in areas such as criteria for marking made clear in advance, fairness, feedback promptness and support for learning. Earlier sections of this paper have dealt with the issue of designing tasks and guidance for students; in this section we are focusing on how students' work is marked and dealt with by tutors. This is the other side of the 'contract' on assessment between institution and students – the need for tutors to respond to students' work in ways that are fair, maintain standards and support continued student learning. The impact of marking and feedback on student learning is as important as the impact of the way in which assignments are designed and communicated. Gibbs and Simpson (2004) report that students pay attention first to their grade and may give little attention to the detailed comments as a result. A grade is seen as a judgement on their performance relative to others, and low results can damage self-esteem, potentially reducing the individual's ability to maintain motivation and learning. Black and Williams (1998) have reported students as paying more attention to feedback where there is no grade, in research at school-level. So clearly it is important that grades are judged fairly and that the reasons for a grade are effectively communicated.

However, providing individual comments to each student is expensive –albeit a marker of some of the most high status universities – and it is important to ensure that it both happens and achieves its goal. Feedback takes two forms – the grade and the tutor's comments on the student's work. It is vital to provide clear criteria so that all tutors use the same approach to allocating marks, because students' ability to learn from qualitative comments is influenced by the grade they get and the clarity of the reasons for that grade.

In relation to feedback, there is evidence that tutors and students have different perceptions. McLellen's (2001) study of 80 faculty staff and 130 third year undergraduates at a UK university showed that most students thought that feedback was not usually – but only sometimes – helpful in detail and in improving learning, whereas staff thought feedback frequently achieved these goals. 69% of staff thought that assessment was frequently used to motivate learning, whereas only 5% of students did, with 65% agreeing that it sometimes did. Whereas most staff saw their marking as using explicit criteria, most students thought that implicit criteria were used at least some of the time. There is evidence therefore that staff do not communicate their practices effectively, and that student learning is not benefitting as a result. McLellen comments:

If [students] believe the [marking] criteria to be implicit, then they may see assessment as some sort of lottery in which they experience inequable treatment from idiosyncratic staff. Such a perception is not impossible given the subjectivity of staff in the marking process …(McLellen, 2001, p316)

Lea and Street (1998) using very different research methods, have also revealed how students may perceive the feedback they receive from tutors as opaque, or confusing, and therefore very difficult if not impossible to use to improve their learning. One aspect of this relates to the language tutors use, and their failure to explain disciplinary practices to students who are new to a discipline and unclear what is required of them.

Communicating Criteria and Feeding Back to Students

Within the Open University, the distance between those setting assessment tasks, students responding and tutors marking, has led to a stronger realisation that students need to understand why and how they are being assessed, and that tutors need to use very explicit frameworks and methods of commenting in order to achieve their aims. Byrne's early study of tutor marking showed that tutor grades on the same assignment could vary widely, and that large open-ended tasks such as the conventional essay approach, often led to the largest discrepancy in marks between tutors on the same assignment (Byrne, 1979). Smaller, more structured tasks, such as those shown above in the business studies example, are now often used to ensure that students maintain focus on key issues, and tutor marks are explicitly allocated to different tasks and levels of achievement.

Studies of the kind of feedback that students find helpful was the focus for an interview study of students on a second level geology module (Roberts, 1996). The most effective feedback from tutors was seen as being encouraging and constructive comments, followed by having detailed explanations to correct one's work or explain difficulties. The worst aspects of tutor feedback were to do with not explaining where marks were lost, delays in returning work and not enough comments. (Problems with illegible handwriting have now largely disappeared since almost all assignments are marked and returned electronically.)

All these studies have led to detailed training for tutors in how to mark and comment on assignments, carried out by a combination of face to face workshops and online briefing materials and guides. Increasingly module assessment guides now include the criteria for marking assignments so that these are known to both students and tutors, with very little if any separate guidelines to tell tutors what to look for in student answers. A study of what makes for good tutor feedback summarised the key features as including these key points:

Students' work is treated with respect
Grading is fair and objective and clearly explained
A clear explanation of how to improve future marks and learning is provided
A sympathetic and friendly approach – the feeling that the tutor is 'on the student's side'
Not to be talked down to or patronised
A combination of encouragement and honest criticism
Detailed comments on the work with an overview that helps the student set priorities for improvement
Return of one assignment in time to help with preparation of the next one
(Cole, Coats and Lentell, 1986)

These guidelines have proved key to ensuring that tutors do not adopt the same kind of tone that may be used with school children or conventional university students – usually much younger than OU students, whose median age is 32 and therefore fully mature with key family and work roles. Emphasis is placed on supporting the positive feelings and self respect of students – it is only too easy for students to feel disheartened by low marks, and even more so by harsh words. Tutors are encouraged to adopt a friendly, positive tone, while also giving students fair grades and detailed feedback – not just pointing out errors but explaining how to do better.

Quality Assurance and Enhancement

Can we trust this system to work? The Open University does build in checks and balances to ensure that practice is monitored and staff also have feedback on their performance. Tutors mark their students' assignments and return them to the Open University, which selects a proportion of all scripts for monitoring. These scripts are read and checked by central academic members of the module team or by others specially paid and experienced to be able to do this. A report is completed on each script that is monitored, checking the fairness of the grade, whether good practices are demonstrated by the tutor feedback and providing a personal comment to the tutor on their marking of that script. These reports are then sent to each tutor, and a staff tutor contacts the tutor to discuss the results. If there is a need for improvement, the staff tutor will explain and will watch that tutor's performance in future, to ensure it develops along the right lines.

Module teams also have to evaluate their own assessment strategy and surveys of students are undertaken after the first time a module is studied and several times after that. Poor performance by students will require module teams to review their assignment design and check out whether it can be improved. They need to ask themselves questions such as these:

Are the assignment deadlines at the right points in the module?
Is the first assignment early enough – and does it encourage students enough?
Are all the assignments clearly defined so that students are clear about what they have to do and how to present their work?
Are any of the assignments so difficult that there is a big drop in performance or increase in dropout at that point?
Are tutors grading objectively and providing helpful and constructive feedback?
Can more be done to spread the workload?
Do students have enough time to revise for the examination?
Are the descriptions of all the assignments clear and the criteria also clear?

Conclusion

I have outlined some of the main elements in the assessment system of the Open University and stressed the importance of good design at the level of the strategy as a whole, and of each assignment for a module. I have also stressed areas that are not so frequently covered in the literature, which is the need for clear and detailed explanation to students about how the assessment process works, what their assignments contribute to their learning and the goals of the module, and the criteria that will be used to mark their work. Tutor training, guidance and monitoring are also key to making assignments support student retention and progress. This system aims to combine validity, rigour and assessment for learning. Gibbs and Simpson have claimed that 'The most reliable, rigorous and cheat proof assessment systems are often accompanied by dull and lifeless learning that has short lasting outcomes' (Gibbs and Simpson 2004 p3). That is the challenge that faces us all, but we know that good learning can be fostered by good assessment and that efforts in this area can make for the most positive impacts on student learning in the future.

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http://unistats.direct.gov.uk/ Unistats provides results from the national Student Survey, for review and comparison of official information about universities and colleges in the UK.