Introduction

The chapter reports on two projects that explored tutors’ and students' perceptions of assessment. Data from three Open and Distance Learning environments - King’s College London, the external programmes of the University of London and the Open University (OU) – were collected. A key focus of the exploration was to establish whether assessment activities in such environments are used to enhance dialogue, interaction and collaborative work and consequently improve learning, and how these activities are perceived by tutors and students. This case study puts forward a conceptual model of formative assessment and discusses how this can be made to work purposefully to support students in higher education.

The objectives of the investigation were to:

- Put forward a conceptual model of formative assessment based on the literature and explore whether this model has any implications for learning and teaching in ‘real’ environments.
- Promote an understanding of the significance of formative assessment by establishing and comparing attitudes to assessment amongst tutors and students.
- Identify current feedback practices and examine whether these practices support formative assessment and identify examples of good practice of formative assessment.
The idea was that the projects would benefit assessment stakeholders in higher education, in particular tutors, students and policy makers. Participating tutors should be encouraged to reflect on assessment practices and support mechanisms and tools that are required for effective formative assessment. Those concerned here were distance learning tutors from a range of disciplines in the three participating institutions. A significant part of their role was to mark and comment on student work. Undergraduate and postgraduate students could benefit by engaging in dialogue in relation to feedback and participating in innovative assessment activities, such as peer and self-assessment. In addition, the outcomes could have an impact on policy by informing practice about different types of assessment and the use of more interactive feedback.

Rationale

In a face-to-face context, higher education institutions (particularly research-led institutions) have sometimes been concerned more with examining than learning and teaching. This has led to an emphasis on summative assessment, or assessment for accreditation. By contrast, Open and Distance Learning (ODL) environments have tended to emphasize the necessity of formative assessment practices. Distance education in general has been proactive in developing innovative formative assessment, out of the need to find ways to provide systematic feedback to students in the absence of direct contact and interaction with tutors in a campus setting. Assessment methods in distance learning contexts can benefit from an element of dialogue. Different disciplines and learning environments (campus-based or distance learning) use different approaches to assessment and comparison of approaches can lead to a cross-fertilisation of good practice across disciplines/institutions.

These projects focused on formative assessment, that is assessment which yields information useful for tutors and students ‘to modify the teaching and learning activities in which they are engaged’ (Black & Wiliam, 1998a: 2). Juwah et al. (2004) have developed a model of formative assessment that represents a synthesis of current thinking by key researchers in this area, including Sadler (1983, 1989); Black and Wiliam (1998b); Torrence and Pryor (1998) and Yorke (2003).

Among the seven key principles of formative assessment identified by Juwah et al. (ibid), it is the encouragement of dialogue around learning that is viewed as fundamental to effective feedback practices. According to this discourse, the learner is at the centre of the model and an active participant in monitoring his/her performance and in closing what has been termed the loop (Sadler, 1989). In this study, the understanding of feedback as dialogue was fundamental to the process of ‘closing the loop’.

Communication forms part of the mechanism by which the learner monitors, identifies and then is able to ‘bridge’ the gap between current learning achievements and the goals set by the tutor. The view of feedback as an active, participative process, contrasts with the notion of feedback as a transmission process that involves ‘telling’ or passing on information. In other words, communication becomes a vital part of the feedback cycle that enables students to actively construct their own understanding of what can be complex and difficult messages to decipher (Higgins et
Nevertheless, to be formative the feedback should involve some level of dialogue amongst both the students and between the tutor and the student. This dialogue should result in negotiated points of action and monitoring of progress by the tutor, which has not been always the case shown in our data (Hatzipanagos and Warburton 2009).

Learners are the object of assessment, reacting to an imposed process and tutors are the dominant group: adult learners should have a role in the assessment process (Leach et al, 2001). This notion of feedback as dialogue probably ‘disempowers’ the tutor by redressing the balance of power, but it can be seen to empower the student. The outcome/product of this dialogue can be disconcerting for the students as there is no ‘pre-determined’ handed-down set of judgements, but a mutually constructed set of targets that the students will act upon.

Adopting the view of feedback as dialogue and student empowerment leads to an emphasis on assessment strategies that involve the learner at various stages: participating in the assessment setting process, which may include different types of involvement (for example, peer and self-assessment, negotiating assessment criteria, constructing assessment questions). Peer or self assessment and collaborative learning can enhance dialogue and increase the formative aspects of student learning.

e-Assessment has certainly enriched conventional assessment methods (Whitelock, 2009). New technologies provide an opportunity for using different types of assessment and expanding the range of formative practices of assessment. Computer mediated communication is the essential medium that underlies e-assessment to support feedback. The provision of feedback is enhanced by the interactive, timely and continuous qualities of the medium.

**Context**

This project explored a range of formative assessment practices and examined how they are implemented within ODL environments in higher education. It identified tutors’ perceptions and attitudes towards assessment and investigated the relationship between formative assessment and learning technologies in the light of the potential these technologies afford.

Following semi-structured interviews with tutors focusing on their perceptions of assessment and evidence of dialogue and interaction around formative assessment and feedback, the collected evidence contributed to identifying individual cases of practitioners employing formative assessment. It explored assessment practices in distance education with a focus on tutors’ orientations. The concept of orientation used in this research was used to describe a pattern of beliefs that stems from tutors’ assessment practices and their explanations of those practices (based on Samuelowicz & Bain, 2002).

The aim was to encourage the cross-fertilisation of assessment practices between different learning environments, where summative assessment sometimes dominates. From the three environments, the King’s College CDL and the external
programmes were broadly similar, and there were also consistent elements of good practice. As far as the external programmes are concerned, there was evidence of huge diversity in practices. This was to be expected in a diverse system across the spectrum of disciplines, institutions and target audiences that constitute the external system of the University of London. The OU has an infrastructure in place to provide systematic provision of feedback. In addition, they have a framework which emphasises periodic assessment rather than end of year assessments.

Twenty tutors and seventeen students from the three ODL environments participated in open-ended interviews. We aimed to include tutors and students from the same disciplines. Where that was not possible we looked at courses which had a similar disciplinary context, so the context would not be dissimilar. Samuelowitz and Bain’s (2002) differentiation of learning-centred and teaching-centred disciplines allowed us to encounter a broad classification of disciplines. An online questionnaire based on the interview outcomes was administered to a large cohort of students and within the three environments; there were 1,032 returns.

Description

Analysis of the data revealed that institutional cultures and the nature of an institution determine what assessment practices are used and how they are implemented. The outcomes can be summarised in four major categories:

Impact of policy on tutors’ practice

Policies, guidelines and documentation that currently exist in relation to the provision of formative assessment and feedback at both local and institutional levels were examined. We looked for evidence of formative assessment practices in institutional documents such as institutional and departmental learning and teaching strategies, handbooks of assessment and course approval forms. The idea was to investigate the existence of explicit/implicit guidelines on feedback provision. However, while most of the documents seemed to encourage innovation and diversity in summative assessment methods in order to ensure the best possible opportunities for student learning or for the course leaders/tutors’ benefit, they did not make a clear distinction between summative and formative assessment practices.

Tutor engagement

Despite the frequent occurrence of assessment guidelines for practitioners, there is sometimes a disjunction between beliefs, ambitions and pragmatic approaches to the use of formative assessment. Analysis of the data revealed that the practitioners’ attitudes to formative assessment were dependent on the context in which they operated, and were discipline-oriented. The first classification of approaches in the project was in two substantial groups and one smaller group. The first two held tutors who claimed that they were proponents of formative assessment: they either used formative assessment in their practices (group 1) or claimed that they did not; however they would consider it if pragmatic constraints allowed it (group 2). The third
smaller group held those that did not consider formative assessment necessary in their context.

A significant number of tutors in our study recognised and valued the formative aspect of summative assessment. According to their responses, the assessment policies determined but did not constrain the methods of assessment they used. However, a smaller number of tutors felt constrained by the policies on assessment and the particular assessment set-ups, and this determined their decision not to innovate. For these, the feedback provided was generally seen as predetermined by the types of assessment used and did not appear to have a formative role.

The range of assessment methods available included:

- Essays, assignments and exams
- Multiple Choice Questions
- Objective Structured Clinical Examinations (OSCEs) in a clinical setting
- Assessed contributions to online tutorials
- Word processed assignments submitted online
- Portfolios
- Mock exams
- Project reports
- Research proposals
- Social software outputs, such as in Blogs and Wikis

From the methods of assessment used, those that included an element of dialogue were considered the most formative. Overall, the notion of ‘formative’ varied; for example, often it was equated to ‘continuous assessment’. In courses where exams were the primary method of assessment, no feedback was provided with the exception of courses where some feedback could be given upon request. Peer/self assessment and collaborative learning were seen by the tutors as the most formative practices, but interestingly they were not used extensively.

**Student engagement**

The findings suggested that the target audience of institutional groups of students were diverse in terms of perceptions. Analysis of the data revealed that students’ attitudes to assessment were not discipline dependent. It was the broad context (the ODL environment) that determined attitudes. They were overall positive to the use of e-assessment; however the majority recognised the challenges in providing a suitably formative environment in these settings.
Students had some difficulty in defining their personalised learning environment and the affordances, that is, the intended, prescribed functions of the technology, but also the unintended consequences of the learning technology tools they used (Conole & Dyke, 2004). For instance, some of the students showed very little appreciation of true/false computer based quizzes as tools for engaging learners, and described them as ‘superficial’. Others thought that electronic annotation of an assignment by the tutor allowed better integration of the feedback into the assessment process, further facilitating dialogue.

**Formative e-Assessment**

The projects considered whether current formative assessment practices can benefit from learning technologies and the opportunities for participation and dialogue evidenced in the rise of emerging learning technologies, with tools such as social software and electronic portfolios. These included all those practices that promote and support student dialogue.

As a result, it was necessary to set a weighting against certain methods of assessment. We rated as low those assessments that do not facilitate dialogue, e.g. end-of year assessments are usually problematic in this respect, for objective reasons (the students do not have the opportunity to engage in feedback cycles), and consequently the ‘closing the loop’ cycle cannot be completed; whereas methods of assessment that generate dialogue between tutor and students about the assessment outcomes, with agreed action points and monitoring of progress, had a strong formative nature.

Tutors used a range of technologies that can support learning, although they are not clearly formative in nature, for example:

- Objective tests, though they ‘disagree’ with certain disciplines, particularly in humanities, where tutors saw them as irrelevant to the ‘discursive’ quality that student answers should have.

- Model answers, received or revealed after students submitted their answer, as non-personalised feedback.

- Electronic submission of assignments or projects, as this is perceived to encourage more comprehensive provision of feedback.

- e-Assessment technologies that had a strong formative nature and were used to assess different aspects of student learning were:
  - Communication tools in Virtual Learning Environments
  - Online tutorials where contribution/quality of contribution was linked to assessment.
  - Games that allowed monitoring and intervention.
• Audio, to canvas opinions/understanding of concepts/issues, where audio was perceived to be more meaningful conceptually than video.

• Custom-made tools such as certainty-based marking to improve the impact/function of Multiple Choice Questions.

• e-Portfolios as reflective tools

• Videoconferencing.

• Social software tools, especially blogs and wikis.

An evaluation framework was used to assess progress against the set objectives. An evaluative mid-term report addressed issues such as assessment policies, results of the pilot study and the development of a formative assessment framework. A post-questionnaire was used to provide opportunities for feedback from the participants and assessed changes in their attitudes towards formative assessment and feedback, and evaluated effectiveness of resources produced by the projects.

Discussion

The implication is that a categorisation of assessment practices in four stages (Table 1) could benefit tutors working in different disciplines by encouraging them to move from stage Zero (limited evidence of engagement with formative assessment practices) to Stage Three (making formative assessment central in teaching practices).

Table 1 Embedding formative assessment practices in the assessment cycle

<table>
<thead>
<tr>
<th>Stages</th>
<th>Description</th>
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<tr>
<td><strong>Stage Zero</strong></td>
<td>- Assessment mostly through exams and end of assessment term projects.</td>
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<td>- No provision of feedback.</td>
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<td>- Limited or no peer/self assessment opportunities.</td>
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<td></td>
<td>- Limited or no use of learning technologies to support assessment practices.</td>
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<td><strong>Stage One</strong></td>
<td>- Generalised feedback on student work but of limited customisation to the needs of the individual learner.</td>
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<td>- Examiner reports with model answers for monitoring/evaluating assessment practice.</td>
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<td></td>
<td>- Use of learning technologies to support assessment through objective tests</td>
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<tr>
<td><strong>Stage Two</strong></td>
<td>All the above in Stage One plus:</td>
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<td></td>
<td>- Periodic/continuous assessment for learners to rehearse arguments that they will use in end of assessment period assessments.</td>
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<td></td>
<td>- Feedback is monitored, to ensure that students will act upon negotiated targets and the feedback loop is closed.</td>
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Learner responses to feedback become an essential part of the assessment cycle.
Use of learning technologies such as computer mediated communication to facilitate the assessment cycle.

**Stage Three**
All the above in Stage Two plus:

- Peer/self assessment.
- Student involvement in setting marking criteria.
- Use of learning technologies to peer review, and to construct knowledge collaboratively.

**Stage Zero**

In stage Zero assessment is implemented mainly through exams and end of assessment term projects. In this setup, feedback on performance is either limited or non-existent. There are no opportunities for peer/self assessment and there is no use of learning technologies to support assessment practices.

Exams are a common assessment method in higher education. However, in ‘end-loaded’ assessments such as end-of-year exams, students do not benefit from feedback. Implementation of formative assessment practices and the provision of feedback can be problematic in courses where the emphasis is on end-of-year assessments, as the ‘closing the loop’ component of the assessment process very rarely takes place.

**Stage One**

Stage One is characterised by the provision of generalised feedback on student work. This is (by default) of limited customisation to the needs of the individual learner. There is limited use of learning technologies to support assessment practices.

A possible drawback to providing generalised feedback is that it is not tailored to the needs of individual students, unless it is customised by the tutor. A more adaptive approach tailored to learner needs would benefit the students. This can be logistically difficult with big cohorts of students. However, a solution could be a concise template including feedback on performance and developmental issues which the students would need to consider. This template (very close to a generic feedback sheet) could be adapted/personalised quite easily by the tutor for every student.

Examiner reports with model answers are also used to monitor and evaluate assessment practice. Examiners’ reports for the use of tutors and students are useful because they are not model answers to exam questions but a concise and sometimes reflective account of the issues related to a correct approach to answering assessment questions.
Stage Two

Periodic/continuous assessment is central in Stage Two, helping learners to rehearse arguments that they will use in end of the assessment period assignments. The notion of continuous assessment that some distance learning institutions have endeavoured to put in place tends to be more of a periodic rather than a continuous nature. Some form of periodic assessment is necessary to ensure that monitoring progress and study support measures are in place for the students, before they reach the final assessment. However, even periodic assessment may play a summative role, if there is no opportunity for the students to revisit and use the feedback subsequently.

Feedback is monitored, using computer mediated communication, to ensure that students will act upon negotiated targets and the feedback loop is closed. In this way, learner responses to feedback become an essential part of the assessment cycle.

Stage Three

Peer- and self-assessment play an important role in Stage Three, as do activities designed to help students to acquire ownership of the assessment process. This may also take the form of student involvement in setting marking criteria.

Use of learning technologies to peer-review and to construct knowledge can facilitate assessment activities. Further emphasis on formative assessment can be facilitated by the use of computer communication tools that encourage dialogue about feedback and assessment (such as blogs and wikis, synchronous and asynchronous discussion forums and social networking tools).

Conclusion

In this research, we considered feedback intertwined with the notion of dialogue, as a two-way communication between the student and the tutor and also among the students themselves. Our evidence suggests that assessment and e-assessment practices which involved the provision of formative feedback seemed to encourage student self-assessment and self-regulation.

The projects contributed to the development of a framework for rationalising formative assessment practices. Within this framework, assessment methods are most effective if they move practitioners and students towards the use of formative assessment.

References and URLs


Biography

Dr STYLIANOS HATZIPANAGOS is the College e-learning coordinator and the head of the e-learning function at King’s Learning Institute (KLI) King’s College London. He contributes to the development and delivery of KLI’s graduate and undergraduate
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His research portfolio includes: innovation in learning and teaching, formative assessment in higher education, e-assessment, usability and evaluation of e-learning environments and microworlds, computer mediated communication and computer supported collaborative work, social software and social networking.

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