

E-assessment for Open Learning

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Computer based assessment is becoming a major part of the experience of university students. This development involves both high-stakes summative assessment and formative assessment embedded within blended learning processes.

Present use of computer based assessment in universities can be characterised as follows.

- 1 Uptake that is focused in the sciences.
- 2 Assessment tasks that involve recall rather than cognition.
- 3 A growing use of commercial and central providers.
- 4 The growth of Web Services that include assessment and transcend
- 5 Limited use for summative purposes.

The summative role of computer based assessment has been limited by many factors, particularly the perception that it is not sufficiently valid or authentic, and that it is vulnerable to collusion and plagiarism.

There have been a number of analyses of the adoption of e-assessment. For example, Whitelock and Brasher [1] have set out a roadmap and vision for e-assessment and have identified the drivers for adoption as; the prospect of increases in student retention, enhanced feedback, flexibility for distance learning, scalability, and objectivity in marking. They assert that the principal barriers to uptake are the need for academic staff development, high entry cost, and social and regulatory conservatism.

Many of these factors are relevant to both residential and distance teaching universities. However, there are a number of factors that should promote enhanced interest from those involved in open and distance learning.

Enhanced engagement in part-time students. One of the Gibbs and Simpson [2] conditions for effective formative assessment is 'strong and consistent engagement', a condition that is part-time students find difficult to meet. Engaging assessment that is based around rich interactive Web-accessed tasks is a teaching tactic available to distance teaching universities.

Enhanced feedback to dispersed students. Assessment tasks have greatest value if feedback is provided 'in time and in sufficient detail to affect learning' [2]. Although tutor support of remote students can meet or surpass the standards in residential settings, it is likely that there will be delays in students receiving academic support and advice. The feedback from computer based assessment can be instant and specific to the student. The value of such immediate feedback has been noted by many authors [3,4].

Access to large markets that justify investment. Even with expected increases in efficiency in item generation, there are large investment costs in creating computer based assessment. The scale of operation of large distance teaching universities allows such costs to be distributed within a single institutional 'market'. For example, the Central Radio and Television University in China has over two million students, a scale of operation that matches the largest publishers of blended learning packages.

Collaborative opportunities in item bank generation. The successful creation and adoption of item banks [5] depends crucially on local acceptability and each negotiation required to achieve such acceptability requires time and generates costs. Collaborations between a few large partners are potentially more viable than the bringing together of a larger and more fragmented community.

These additional drivers are encouraging ambitious programs of development of computer based assessment packages. For example, the UK Open University is investing in interactive computer marked assignments, which include complex interactive learning tasks and more sophisticated responses. The intention is that the assessment should drive the learning rather than record its effects. Examples of just two of the twelve packages will illustrate the potential. All have been implemented using the open-source Moodle platform [6].

The first is described in an accompanying paper [7]. It involves a basic science course and the use of short open text responses, with response specific feedback. This study, in moving from closed to open responses, enhances the validity of the assessment task and

replicates to some extent the subtle learning dialogues that are found in teacher student conversations.

The second is the Learning with Interactive Assessment LINA project (Nix and Wylie 2007) in which health-practice focused students are provided with topic based computer based assessment with an opportunity to input evaluation of the confidence they have in their responses and to reflect on their learning within a learning log. Both these elements support the development of learning skills and are relevant to development of learner autonomy.

These examples are part of a larger trend in eassessment. There is an increasing interest in computer based activities that are constructivist. Examples are; virtual practice environments, simulations, e-conferences, Wiki construction, e-portfolio generation, etc. In each case, integrated assessment can provide inputs to an automatic grading and feedback tool. Distance teaching universities may benefit from these developments, as it will become easier to monitor and therefore assess group activities that are difficult to construct for a dispersed student body.

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