Institutional Strategies for the promotion, implementation and evaluation of e-assessment – a case study from City University.

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OVERVIEW

This case study outlines the development of e-assessment policies and practices at City University since 2003. It describes the variety of e-assessment types which are currently in place at the university and the strategies for staff and student support which have contributed to their development and implementation. The development of e-assessment policy intersects with Registry, Academic Development Services as well as the Deans for Teaching and Learning from the university's constituent Schools and it has been important to get each of these stakeholders involved in the formulation of e-assessment policy, although, as outlined below, the policy is owned by E-Learning Services.

The case study includes discussion both of the role that E-Learning Services has taken in the development of these institutional policies and practices, as well as how the rapid increase in the take-up of e-assessment has had a significant impact on the realisation of the Managed Learning Environment. However e-assessment at City University is not exclusively tied in to our MLE, as we have made progress with, for example, a Personal Response System which is used in face-to-face teaching, yet which records student achievement electronically and where results can be integrated into the MLE grade book. The case study concludes with some reflections on what we have learned thus far in our development of e-assessment and some thoughts on the challenges we face in order to take e-assessment policy further.

A Brief History of E-Learning at City University

Prior to 2003 and the acquisition of a Managed Learning Environment at City University there was little in the way of e-assessment at the university. What there was tended to be formative assessments using MCQs on websites which individual staff members had created for their classes. The decision to acquire an MLE (WebCT Vista as it was then called – now branded the Blackboard Enterprise System) was in part driven by the expectation that it would deliver efficiencies around assessment issues, though there was no clear articulation as to how this was to be achieved. At the same time as the MLE was acquired, the E-Learning Unit (now called E-Learning Services, or ELS) was established to support the roll – out of the MLE, which necessarily required the unit's staff to engage with e- assessment. In the period since 2003 about 70% of the university's modules have achieved an online presence in the MLE (branded CitySpace at City University), and there are now over 1 million log-ins per year. Whilst not all of these modules use e-assessment, many do. Part of the purpose of this case study is to describe some of the more innovative and imaginative uses of the e-assessment tools which come bundled with the MLE (MCQs for formative and summative assessment, online assignment submission and graded discussion boards) as well as to talk about some of the new learning technologies City has acquired, and the new opportunities for assessments they present.

Of central importance to the success of e-assessment at City University is the development of relevant skills in both staff and students to incorporate these new tools into the suite of assessment practices. As part of the effort to embed these relevant skills, ELS has made professional development available to staff in this area and has provided support to students to help accustom them to these tools.

DESCRIPTION OF THE CASE

Perhaps inevitably it was the Department of Computing at City University which first recognised and implemented the use of MCQs for summative assessment following the introduction of the MLE, beginning with year one undergraduate courses at the end of their first semester. Over two hundred students took MCQs in four modules. This required considerable support from E-Learning Services, in both the design and management of the examinations. Although the event was counted a success, with the students taking their e-assessments in invigilated computer suites, it was quickly realised that a clear set of protocols would need to be developed if such events were to be scalable across other departments. These protocols identified the need to alert Computing Services prior to any assessment taking place, to maximise system stability and to ensure sufficient technical help is available should it be required. Moreover it was clear that, although students had all been given the opportunity to practice this form of assessment beforehand, they would need more support if they were to become comfortable in the new environment.

E-Learning Services responded to the lessons learned from these early experiences with e-assessment by establishing ways to ensure student familiarity with electronic assessment methods, and to guard against technical problems during high-stakes assessments. For the students, we have created opportunities for them to practice using assessment integral to our student induction programme. All City University students are enrolled on an 'E-Learning Induction and Resources Module' in the MLE which offers them the opportunity to use the MCQ tool, practice with Flash-based quizzes and submit online assignments. It is made clear to the students that this induction space is purely for them to accustom themselves to the MLE and the quiz tools, to ask any questions they might have about the process, and will be there to return to it at any stage of their studies to remind themselves of the protocols around these tools. Where any high-stakes assessment is undertaken staff are required to submit an completed e-assessment checklist in advance of the session which, inter alia, requires staff to provide evidence of pre- examination practice with the e-assessment and advises students to take normal 'off-line' tools with them to aid in their exam taking (for example, to bring pen and paper to ensure they have an opportunity to work out answers).

E-Learning Services has taken the lead on staff development in e-assessment through its Professional Development Programme. This is comprised of six strands, one of which is devoted to E-Assessment and Evaluation, while two of the other strands, Building Online Communities and Designing Online Courses, also touch on aspects of e-assessment. These strands are delivered as workshops which are available to departments on a bespoke basis as well as campus-wide workshops which help to provide a hub for the exchange of ideas and assessment practices. These workshops are augmented by one-to-one sessions with staff who are interested in developing innovative forms of e-assessment, for example, including images and/or audio as part of the MCQ palette for either formative or summative assessment. The workshops are supported by our Teaching and Learning Online module available on the MLE and on to which all staff are enrolled. On there, e-assessment materials and case studies (among other matters) are available to share, and an online community about these topics is developed.

Additionally, staff from E-Learning Services contribute to assessment projects and policies through other University initiatives that don't solely focus on e-learning. ELS staff play a role in the seminars on e-assessment run by the university's Centre for Education and Academic Practice (CEAP), and teach on aspects of e-assessment for that department's MA in Academic Practice, which most new staff who don't already have a teaching in HE qualification do. These are yet more routes, then, for academic staff to work closely with ELS to develop their ideas for both formative and summative assessment and to participate in the various events which are hosted by the university on e-assessment. Another means of staff contact is through participation in our Champion's Scheme, which annually offers funds to each school if they nominate a champion to engage with some innovative form of e-learning.

With new learning and teaching technologies being incorporated in to the body of technologies E-Learning Services supports, new opportunities for assessment are arising. Among the other e-assessment tools in use at City University two are singled out here. The Personal Response System we have integrates fully with the Blackboard Enterprise system; marks achieved using the handsets can be entered automatically into the CitySpace Grade book. Although e-portfolios have not been widely used for assessment purposes yet, City University is developing expertise in this area. Currently students are using blogs as part of their e-portfolio work on the City validated Graduate Certificate in Online Tutoring, and they are expected to include elements from their blog postings in the reflective essay they write as part of the summative assessment on the course. Key skills assessments are also being planned for delivery through the e-portfolio and work on locking down the student transcript has begun.

CASE STUDIES

Group Assessment: Football CAA
Designed by Russell Gerrard in Cass Business School

Russell Gerrard is a senior lecturer at City University's Cass Business School. He had used computer aided assessment before, but had often thought about the question of collusion: other than running an invigilated exam, how could he be sure that his students wouldn't work together to take any computer-based exams?

Rather than try to stop collusion among students, Russell hit upon the idea to encourage it to the benefit of everyone. He looked for a team-based metaphor that men and women, British and international students alike could understand, and came up with the notion of placing his students into football teams. These teams would meet for weekly 'matches' (i.e., head-to-head quiz taking) with the performance on questions determining both individual scores as well as overall team rankings. The assessments are delivered via CitySpace with an extra Perl-based script written by Russell enabling the extra features and tallying the results of the assessments.
This method of group assessment has only been running for this current academic year and so it is too soon to report comparison results. Colloquially, though, the lecturers on the course have noticed a high level of students studying collaboratively and giving peer support, a great deal of excitement about the course and the assessment process, a sense of fun in the learning and the assessing, being involved in course, and students devoting extra hours to studying and discussing the assessments.

Peer Reviewing Using Personal Response System
Designed by Mary Aylmer, School of Engineering and Mathematical Science

Mary Aylmer, with the School of Engineering, has typically run a group project as the assessment for the students on her games and software design module. Each group gives a presentation to Mary and the rest of the course, and the other students would mark both the presentation as well as the final project itself, based on a set of marking criteria Mary had designed. This would typically be paper-based, and would take a fair amount of compiling all the paper-based data.

This year, City has brought in a Personal Response System, which has been used in lectures to increase student participation. Mary recognized that the methods used in PRS could take the place of the cumbersome paper-based method of gathering peer reviews, and has successfully included it in the assessment process during this past term. The process of students marking against a set of criteria remains the same, except students now use PRS to 'vote' for their mark rather than ticking it off on a page. Collation of the data is instantaneous, and has saved many hours of work while producing the same results. Students create a group project in games design and present it to their peers

Multimedia Formative Assessment
Created by Julie Attenborough and Dr Alan Simpson, St Bartholomew's School of Nursing and Midwifery

Julie Attenborough and Alan Simpson designed a learning CD for their Mental Health course, designed to allow students to view and assess clinical situations. They had access to and created many videos which depicted patient and carer situations, and then created formative assessments that corresponded with the videos, and allowed students to assess aspects of the care they had just viewed.

With the Flash streaming server that City has recently brought in, these assessments can be very closely integrated. Whereas before the video would be viewed on one web page and the formative assessment taken on another, the video and assessment can sit side-by-side, and can be accessed simultaneously. This lessens the cognitive load on the student, since they no longer have to remember information about what was being asked while they went to find the corresponding part of the video; the question is visible on the same area of the page the video is.

Dissertation Support Using Videoconferencing
Run by Jason Dykes, School of Informatics

Jason Dykes with City University's School of Informatics has devised a method that allows him to support student dissertations when either he or his students might be away from the University. Distance courses are not uncommon in the School of Informatics, and dissertation support of these students has created difficulties in the past. Jason had experimented using different video conferencing or voice-over-the-internet tools to hold meetings with his students to discuss their papers.

This past term, City had purchased and made available Adobe Connect Professional, and online collaboration and videoconferencing tool. Adobe Connect Professional allows document upload and exchange, marking up documents using whiteboard features, as well as various chat and communication tools (such as a live webcam and audio stream of the participants). One of the unique aspects of the tool is that it can be recorded, with the recording instantly available once the session is over. All interactions and conversations are captured during this recording

Jason has begun using Connect this Spring term to support his distance dissertation students, and both he and the students report that the programme allows for easy communication. Key to the tool, though, is the recording, allowing both the lecturer and the student to revisit the conversation held and clarify any of the details discussed during their session. Devised to support students (or lecturers) at a distance

CONCLUSION – WHAT HAVE WE LEARNED AND WHAT POLICIES HAVE WE DEVELOPED?

What has emerged from our 4 years experience of rolling out a variety of e-assessment tools? We have made tremendous inroads in getting users to accept e-assessment as a viable method of assessing, and have learned how to support user needs both from a technical standpoint as well as a skills development one. We have a clear set of protocols which must be implemented before any high-stakes assessment takes place, we have provided support for staff and students, and we operate across the University in order to communicate new initiatives being taken on. One of the key challenges we face is how far we are able to persuade academics to engage with and introduce innovative forms of assessment that move away from the simple essay-based form. Whilst it is recognised by many academics that such innovations will help to reduce incentives for plagiarism (as does extensive use of Turnitin by them and their students) it is nevertheless difficult sometimes to move away from traditional assessment methods.. New technologies – such as PRS, e-portfolios, Adobe Connect – are helping to create new opportunities for creative teaching as well as creative assessment, and we hope that these opportunities will spark staff creativity.

Another challenge we face is to make contact with those staff with whom we don't currently engage. Inevitably, there are still pockets of staff who could benefit from our knowledge as well as examples of good practice that remain isolated until a chance meeting uncovers these new contacts. The development opportunities ELS offers to staff (as well as students) are plentiful, but buy-in from staff beyond the core group of 'usual suspects' can be a struggle. There is a role for institutional policy in this situation, in order to promote and encourage different types of academic staff development and incentivies development opportunities.