Diversifying modalities for supervised e-Exams

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Abstract

This poster will showcase a range of e-exam types from live trials lead by the authors that were conducted across several Australian universities under the 'Transforming Exams' project 2015-2018 (Hillier, et.al 2015).

At the core of our effort is the idea of authentic assessment (Mueller 2016). The evolving employability requirements of the 21st century demands a shift in high stakes assessment design that better reflects the prevailing problem solving environment of the professions into which students will be progressing. For example, an accountant uses a range of software tools such as

spreadsheets and accounting management systems as their modern tools of the trade to carry out their work. An examination that limits a student's problem solving tool kit to only pen-on-paper limit the assessment of their ability to perform under real-world conditions. This applies not only accounting but also to the vast majority of disciplines taught in universities today. Opening up the pedagogical landscape of the exam room has the potential for a positive backwash towards more authentic practices being included in curriculum and course delivery (Anderson 2007). Therefore the higher education sector needs to be looking to modernise their exam room with 'e-tools of the trade' to cater for greater levels of task authenticity in high stakes assessment to better reflect the problem solving practices and employability skills required in contemporary society.

Research into enabling authentic assessment in the exam room conducted under the first two of the five phases of the 'Transforming Exams' project has evaluated several assessment modes using live trials under exam room conditions. Both qualitative and quantitative data was collected via observation, technology logging, pre-post surveys of students and focus groups. The e-Exam technology system used Live Linux as a means for locking-down student's laptops to prevent unauthorised materials or assistance via computer channels.

Twenty trials were conducted across eight universities involving over 750 students typing their exam. The e-exams primarily used word processing documents as the question and response environment with links to multimedia and additional software tools. Exams involving spreadsheet, software programming and multi-language translation exams were also undertaken. The third and most recent phase of our work has seen the development of an approach to connect the Live USB environment to Moodle in a manner that creates an infrastructure resistant to network outages. Example questions and student feedback on featured exams from various disciplines will be provided. Overall students rated the e-Exam experience at 4 or above on a 5 point scale with no issues of cheating occurring.

Keywords: Computerised exams, high stakes assessment, authentic assessment