

Doing authentic supervised e-Exams

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Abstract

This poster provides an overview of the process of running an e-Exam where a range of assessment types can be offered using student's own laptops in a secure and controlled manner. Under the 'Transforming Exams' project 2015-2018 lead by the authors, Australian universities have been exploring how to enrich the traditional exam room with authentic assessments. There is a growing recognition that current paper-based testing does not reflect the prevailing problem solving environment of the 'real world' and therefore coming up short in terms of skills and knowledge required for employability in the 21st century. A test that limits the problem solving environment to pen-on-paper or multiple choice e-quizzes limits a student's ability to demonstrate their best. Instead we need to broaden the pedagogical landscape of the exam room. The vast majority of e-testing products available in the market go no further than a limited range of selected response and text-box based questions in a quiz centric format. The challenge is to enable the higher education sector to modernise their exam rooms with contemporary 'e-tools of the trade', whilst maintaining or enhancing the integrity and security of the examinations process as well as being logistically manageable and reliable.

Our project has the idea of authentic assessment at its core, extending on from simple text or e-quizzes and into the area of complex constructed responses with the development of a pathway from paper to post-paper digital exams. We provide each exam candidate with access to the same full operating system environment and a wide range of specialist and discipline relevant software applications. This allows assessment designers to target higher order learning because they know that students will have a rich range of tools at their disposal to solve complex problems and demonstrate their capabilities. Single point of failure risks associated with relying on live networks during a time critical exam event have been addressed using either wholly offline approaches or cached networked approaches that are resilient to network outages.

Our research into enabling authentic assessment in the supervised exam room has included logistics, security, assessment design and technology development that has been refined over a series of live trials under exam room conditions. Both qualitative and quantitative data was collected via observation, stakeholder interviews, field visits, technology logging, pre-post surveys of students and focus groups.

Procedures, a technology tool set and guidelines were developed following twenty trials across eight universities involving over 750 students typing their exam. Recent advances in developing a link to Moodle that can withstand a loss of the network during the exam while allowing successful completion of the exam will be highlighted. The poster will display a recommended process for running e-exams (as a workflow diagram) that has been developed with the flexibility to allow institutions to transition from 'paper-equivalent' e-exams through to rich post-paper examinations. System features pertaining to reliability and security will also be highlighted. Student feedback gathered during the trials relating to acceptance and ease of use will be presented in the form of charts and representative comments.

Keywords: Computerised exams, high stakes assessment, authentic assessment

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