

Transforming exams into e-Exams

Mathew Hillier, University of Queensland

Andrew Fluck, University of Tasmania

Results will be presented from the 'Transforming Exams' project that saw the development of a bring-your-own laptop based approach to computerised, supervised, high stakes examinations. This was verified via live trials at University of Queensland (UQ), University of Tasmania (UTAS) and Central Queensland University (CQU) using the open source e-Exam System. Hillier and Fluck (2013) detailed a number of drivers for the introduction of e-exams in higher education including the demand by society for increasingly ICT literate graduates, opportunities in regard to curriculum change, increasing student numbers, constrained budgets and space shortages. In particular, they argue that a growing disconnect exists between the ICT enhanced formative learning that happens as a matter of course during the semester where many students are undertaking the bulk of their formative coursework including writing and submitting assignments via computer (Mogey et al, 2010), and the stark absence of technology in the exam room. In a recent survey of 500 students at UQ (Hillier & Tran 2014) the idea of e-exams was appealing with two thirds saying that they would like to be able to type rather than handwrite essay answers in exams.

The approach to computerised examinations used in the exam trials at UQ makes a 'whole computer' environment available in a way that leverages the availability of student owned laptops while maintaining controlled, consistent software facilities for all candidates.

Data were collected from students across six courses at UQ at points before and after the e-exam event. Students provided first impressions, technical information, exam experience, exam writing strategies and information on general writing strategies and computer use outside of examinations. Those that used the system rated it highly in the range 4 to 4.5 on a 5 point scale.

The e-Exam system provides for a transition from paper-based assessment, though paper-equivalent assessment using a word processor to post-paper assessments that can include multimedia, simulations, virtual experiments, spread sheets and discipline specific software tools. Further development will see computer marked questions within an 'on-board' Moodle learning management system. The project was funded by the Australian Government Office for Learning and teaching (OLT).

Hillier, M. & Fluck, A. (2013). Arguing again for e-exams in high stakes examinations. In H. Carter, M. Gosper, & J. Hedberg (Eds.), *Electric Dreams, Proceedings of the 30th ASCILITE Conference* (pp. 385–396). Macquarie University, Sydney. Retrieved from <http://www.ascilite.org.au/conferences/sydney13/program/papers/Hillier.pdf>

Hillier, M. & Tran, L. (2014; in press) *The Very Idea of e-Exams: Student (Pre)conceptions*, Australasian Society for Computers in Learning in Tertiary Education conference, Dunedin, New Zealand.

Mogey, N., Paterson, J., Burk, J., & Purcell, M. (2010). Typing compared with handwriting for essay examinations at university: letting the students choose. *ALT-J*, 18(1), 29–47. doi:10.1080/09687761003657580