

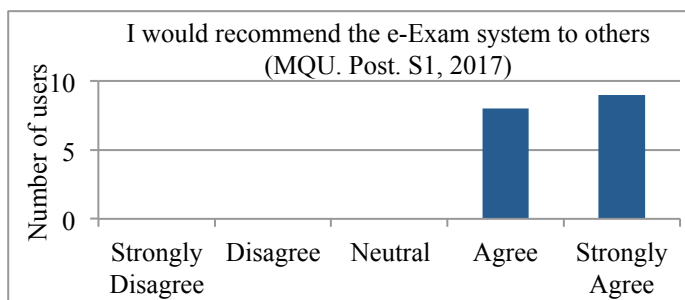
## Case study: Macquarie University, ICT and Education (2017)

### Summary

The Macquarie University e-Exam trial was run in a second year Education unit during semester 1 of 2017. A limited pilot was offered with 17 volunteers typing their exam out of a total unit enrolment of 198. The 80 minute examination worth 40% of students' overall assessment included 10 multiple choice questions and an open-ended essay. The e-exam used a word processor document to present questions and collect responses. The exam session ran relatively smoothly, with only minor (and recoverable) issues experienced by students. Students who opted to complete the e-exam performed significantly better in the exam than students who completed handwritten exam. This may have been because it enabled better organising of their thoughts and response to the essay task.

In a focus group following the e-exam students provided feedback that faster typing speeds, messy handwriting, the ability to edit text and the avoidance of hand cramps were positive outcomes. The students expressed that would like to see computers used more often for writing focused exams. Improvements suggested by students included providing a paper copy of the exam questions that would serve as notepaper and running in-class practice sessions to increase the take-up of the e-exam option. Those that typed said that they would recommend the e-Exam system (see chart).

Discipline	Education
School	Education Studies
Institution	Macquarie University
Level	Undergraduate, Second year
Class size	198 students enrolled; 17 students sat the e-exam in a limited pilot.
Mode	Once a week, face-to-face, single campus.
e-Exam	Multiple choice questions and extended essay question with nine different versions for the eight different tutorial classes; optional; administered by Department.
Assessment	An 80 minute exam worth 40% of unit grade with 10 multiple choice questions and an open-ended essay.



The typed responses were printed for marking with the marker commenting that typed responses were faster and easier to assess.

Among the challenges experienced during the trial include: documentation that was still under development, changes in recommendations around hardware as the project team learnt about which USB hubs were most effective; finding a suitable e-Exams venue that included power outlets and tables; the need for assistance from

technical support staff to perform tasks such as creating the Master image USB; and running through a testing process to see which laptops were compatible.

It was recognised that the e-Exam system was still undergoing further development and that there was a steep learning curve for first-time setup and administration. Further refinement of the administration tools and documentation is planned and this will support more widespread adoption.



Practice session (left)



Exam session (right)

Key features of this case study include:

- First time use of the e-Exam system at Macquarie University.
- Use across multiple time slots raises the need to create multiple versions the exam, although only one version of the e-Exam was created for typists.

### Acknowledgements

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