e-Exam System v5

a secure, scalable, ethical approach to high stakes e-assessment

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Brief

Trials of e-Exam v5 at UQ in 4 courses semester one 2014:

- ✧ Animal biology (1st yr)
- ✧ Veterinary Technology (2nd yr)
- ✧ Criminology (2nd yr)
- ✧ Physiotherapy (3rd yr)

Paper 'equivalent' exams only.

Overall successful.

Few technical issues but process is important.

Trials to continue in semester two.

Trial Procedure

1. Planning and ethics approvals.
2. Call for interested academics.
3. Exam plans for paper 'equivalence'.
4. Student EOI and consent form.
5. Pre-exam set-up/practice sessions with student 'pre-survey', (technical and first impressions).
6. Academics send in e-exam copy. USB master created, tested and duplicated (1 per student).
7. Exam day:
   a. Setup of room (power, paper backup, spare laptops).
   b. Students enter room, then given a USB each.
   c. Exam runs supervised.
   d. At the end, all USBs collected.
   e. Students given post survey.
8. After the exam, USBs are reverse copied to collate responses.
9. Responses sent to academic for marking.

The Numbers

Post-Exam survey Responses by cohort and Mode.

Cohort	Typed	Handwrote
VETS	11	78
CRIM	17	50
PHTY	25	108
ANIM	5	109
Total	**58**	**345**

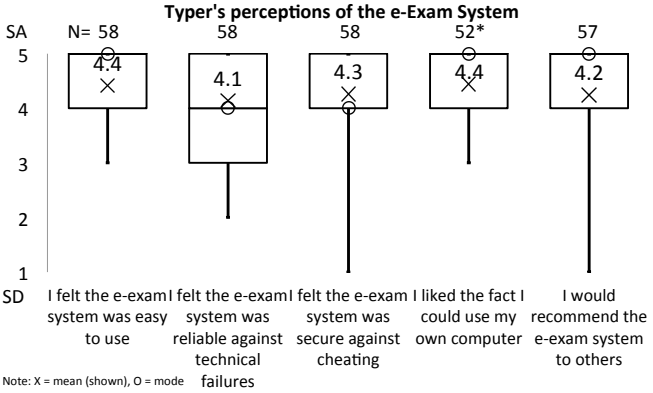
Try it yourself

1. Download the ISO of the open source e-Exam System client.
2. Follow the demo set-up guide to build your own e-Exam USB.
3. Read the user/features guide.
4. Start your laptop with the e-Exam USB. Set-up and start up guides available for Apple Mac and 'Windows' laptops.

Download and try today …

Post-Exam Survey Findings

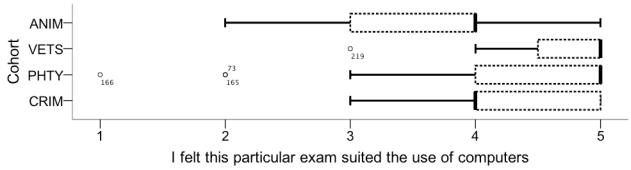
The UQ trials resulted in high levels of positive feedback from those that used the system. *For all charts 5 = Strongly Agree, 1 = Strongly Disagree*



Note: X = mean (shown), O = mode

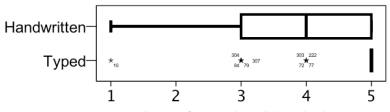
Did students think the exam suited computers?

We asked those who typed… largely that was a 'yes'.

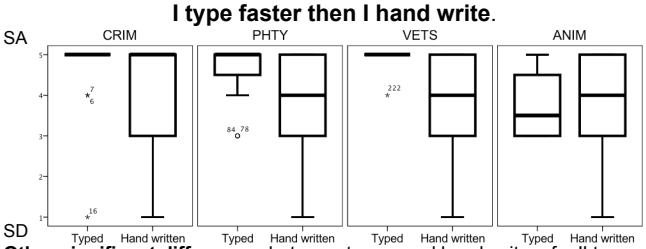


Did typing prowess play a role in choice of mode? (possibly)

We compared between those who typed and handwrote the exam. Combined cohorts show A significant difference in student's self assessment of their typing speed (U 4967, Nt 54, Nh 283, sig<.01) with results by cohort are shown. A reversal in the ANIM cohort was evident although the n for typers was small.



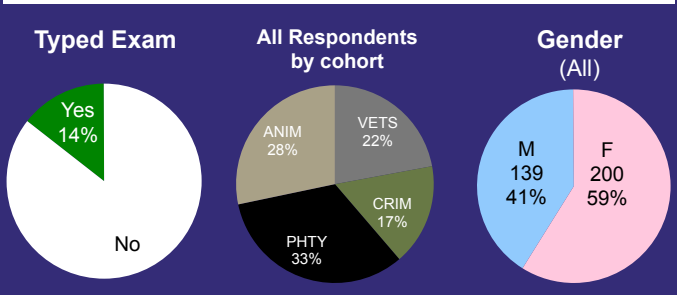
I type faster then I hand write.



Other significant differences between typers and hand writers for 'I type accurately' (U 4758 Nt 54, Nh 283, sig<.01) and 'When I make errors, I am able to quickly correct them as part of typing' (U 5494 Nt 54, Nh 283, sig<.01).

No significant differences (means):

'I ran out of time' (2.3), 'I felt more stressed compared to other exams' (2.6), 'My handwriting is normally neat and legible' (3.4), 'Overall my exam experience was positive' (3.8).



More Findings

Further results available. Ask about:

- ✧ Rationale for mode choice
- ✧ Reaction to exam conditions
- ✧ Keyboarding v handwriting
- ✧ Exam writing strategies
- ✧ General writing habits
- ✧ General computer task use

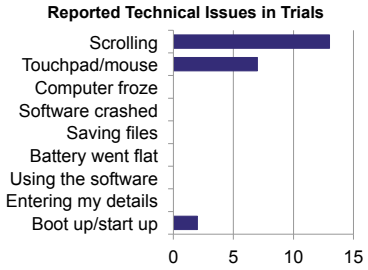
Significance analysis by cohort and by mode (type v pen).

Importance of planning the details.

Feed forward to future technology and procedures.

Some Glitches

During the trial exams some issues were encountered.



- ✧ Scrolling and touchpad related to sensitivity of controls.
- ✧ Boot/start related to forgetting how to do it.

Fixes:

Students must practice! Run more timely pre-exam practice/set-up sessions to test student equipment and procedures. Use wired mice.

Pending:

Implement robust logging, auto 'full save', upgrade to U14.4, further admin infrastructure. Computer marked question types to trial.

The Future

- ✧ Trials approved for semester two 2014.
- ✧ Seeking EOI from institutions to join 2015 OLT Innovation and Development Grant proposal (November application round)
- ✧ Possible formation of an 'International e-Examinations Research Network' - Seeking EOIs

Send us an email to express interest!

Office for Learning & Teaching

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