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Progress report

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Preparing for trials

These units have requested the opportunity for students to use computers in their exams in Launceston at the end of semester 2:

LAW122 Legal Systems - 50 students

HTA102 History 1B: Making the Modern World – 70 students

EPC353 Modes of Curriculum Inquiry A – 100 students

Interest has also been shown in:

- Asian Studies;
- Architecture for assessments based on building photographs in KDA 201/364 (History and Theory in Design);
- School of Human Life Sciences - X-ray assessments

These units are including eExams in their unit outlines, ready for the start of Semester 2. The UTAS Examinations Office has confirmed question papers & files can be submitted electronically in the normal way, and a master USB will be created for each paper by strategic project staff.



eExam interest beyond UTAS

The Tasmanian Qualifications Authority has accepted the need for a trial for pre-tertiary examinations. Dr. Reg Allen has outlined the arrangements which should be put in place for 2011. The Australian Flexible Learning Network which has an emphasis on vocational education and training has published a case study of eExams at UTAS¹. Discussions with Tasmanian school teachers from the TASITE professional association contrasted web-based and student-owned computer-based electronic examinations. There has been uptake in Norway and Britain (where ~10% of GCSE & A level exams use eAssessment). Participants viewed samples using the eExam System where the one-time boot key is held on power-up to select the USB drive as the startup device. The example exams included full-colour photographs, videos, music audio files, spreadsheet models and dynamic models based on learning objects. The eExam System already supports a wide range of accessibility features for candidates with special needs, such as screen magnification and high contrast fonts.

In the Faculties

Discussions have been held with all Associate Deans (Teaching & Learning) at UTAS.

- **Health Science** – on 22nd April the Faculty Teaching and Learning committee passed the motion: "The committee supports the trial of eExams".
- **Education** – on 15th April the Faculty Teaching and Learning committee passed the motion: "That the Faculty of Education Teaching and Learning Committee supports further trials of eExaminations and acknowledges the importance of this initiative, subject to confirmation of its cost neutrality." [a cost benefit analysis is overleaf].

Technical development

Work has commenced on eExams System version 3. This will streamline the startup process and use the latest version of Ubuntu. Additional security features will be incorporated.

500 USB sticks have been ordered with a 4Gb capacity. This means an eExam can utilize the contents of a course-specific CD-ROM as part of the allowed materials.

The USB duplicator has arrived, and proven to make 20 copies of a master stick in about 5 minutes. It can also retrieve all the files deposited by candidates in the Answer partition after the eExam has finished, before they are burned to CD for the unit-coordinator to arrange marking.



USB200PC

Commercial viability

An initial assessment of the eExam system has been conducted with Associate Professor Jack English of the Australian Innovation Research Centre. The IDEAS methodology demonstrated eExams has the potential to become a contender in this emerging market.

¹ http://www.flexiblelearning.net.au/files/UTAS_Case_Study_final.pdf

Cost benefit analysis - eExams

Summary: The initial cost of USB sticks makes eExams more expensive in the first year, but this has been covered by the UTAS strategic project. eExams are less expensive than using paper in the second year, and less than half the cost of paper by the fifth year.

Assumptions: Each year in Launceston there are two semesters with two weeks (12 days) of exams. On each day about 200 students do exams in the morning and 200 in the afternoon. It is assumed that two papers are set for each session.

USB sticks for eExams are an initial cost but they are re-usable for many years. IT support in exams will be gradually diminished as candidates become more familiar with the system and supervisors trained to take on this role.

Other costs such as moderation and marking administration are unchanged between the two text production methods

<u>Traditional Consumable costs</u>	2010	2011	2012	2013	2014	(Uniprint quote 10Jun10)
100 exam papers (3 sheets A3, printed doubled-sided, folded & centre stapled).	\$ 63.00	\$ 63.00	\$ 63.00	\$ 63.00	\$ 63.00	
100 exam booklets @ 11c each	\$ 11.00	\$ 11.00	\$ 11.00	\$ 11.00	\$ 11.00	
Cost of consumables per paper	\$ 74.00	\$ 74.00	\$ 74.00	\$ 74.00	\$ 74.00	
Cost per session (2 x cost per paper)	\$ 148.00	\$ 148.00	\$ 148.00	\$ 148.00	\$ 148.00	
Cost for 24 sessions (one semester's exams)	\$ 3,552.00	\$ 3,552.00	\$ 3,552.00	\$ 3,552.00	\$ 3,552.00	
Cost of examination consumables per year (2 x semesters)	\$ 7,104.00	\$ 7,104.00	\$ 7,104.00	\$ 7,104.00	\$ 7,104.00	

eExam consumable costs

Cost of a single 4Gb USB stick	<u>\$11.98</u>	(DiskBank quote 6 May 2010 11:39 AM)				
Initial cost of USB sticks - assume two sets of 200 each to allow time for daily preparation and answer retrieval = 400 sticks	\$4,792.00					
IT support - preparation and answer retrieval: 2hrs per day @\$50/hr over 24 days/yr	\$2,400.00	\$2,400.00	\$2,400.00	\$2,400.00	\$2,400.00	
IT support during each eExams session (hrs per day)	4	3	2	1	0.5	
Cost of IT support during eExams over 24 days	\$4,800.00	\$3,600.00	\$2,400.00	\$1,200.00	\$600.00	
Cost of eExam consumables per year (2 x semesters)	\$11,992.00	\$6,000.00	\$4,800.00	\$3,600.00	\$3,000.00	
Cost to Faculties (minus UTAS strategic grant)	\$0.00	\$6,000.00	\$4,800.00	\$3,600.00	\$3,000.00	

NOTE: Uncosted benefits of eExams

- 1) Faster reticulation of digital scripts after the examination during the marking & moderation processes
- 2) Reduced storage and transportation costs (USB sticks, a CD or electronic files instead of boxes of heavy paper)
- 3) More authentic assessment (including video scenarios) and questions aimed at higher order thinking which cannot be replicated on paper.