

**CHARLES DARWIN UNIVERSITY
BREAKTHROUGH INITIATIVES 2009
TABLET ENABLED CLASSROOMS (SEIT & Common Unit Program)**

Academic Unit: Business Unit/Service Area	Faculty Education, Health & Science
<p>Outline – What The Proposal Will Achieve</p> <p>This submission proposes creating two additional Tablet PC enabled learning spaces on Casuarina campus, by refurbishing and equipping two rooms with a capacity of 50 students each, and updating the tablet equipment (over five years old) in the existing wireless learning space. We advise leasing the required 150 tablets as a cost-effective way of supporting ongoing maintenance and replacement.</p> <p>As the use of web, Learnline and other learning technologies becomes more prevalent in course design at CDU, so our need for the labs has grown. Because the current tablet classroom is at capacity usage, a number of courses must instead conduct classes in computer labs in order to engage online, with the result that normal classroom interaction is restricted, since computers are fixed and their positioning does not allow face-to-face contact.</p> <p>By modernising our classroom spaces to support the university's commitment to flexible learning pathways, and to student-centred, technology-mediated pedagogies, we place the university at the forefront of quality and effectiveness in teaching and learning, and ensure equitable learning experiences for our students regardless of mode or demographic. Incorporating these technologies as an integral part of classroom activities at CDU will allow our broad demographic of students to engage with learning in a variety of ways, so that individuals' learning styles and cultural orientations can be incorporated into the experience.</p> <p>Students will now be enabled to:</p> <ul style="list-style-type: none"> • research and extract information via the web to augment classroom discussion; • utilise the WP function to record information and apply what is being learned in situ; • engage with Learnline, Wimba live classrooms, Wikis and Blogs to interact with each other synchronously regardless of mode; • access a range of additional technologies for IT and design-oriented units, to put learning into practise. <p>Their learning experience will be further enhanced by the size of the Tablet spaces, which will:</p> <ul style="list-style-type: none"> • allow for team teaching - a valuable way for teachers to share expertise and teaching approaches; • allow for the integration of lectures, tutorials and practicals so that the learning experience is much more holistic; • facilitate consistency and quality in teaching approaches, particularly in high enrolment units. <p>The CDU staff experience in common units and in IT support an increase in student satisfaction with their learning experience when utilising such innovative learning spaces. A published paper by Jodi Tutty, IT Theme Leader, has substantiated this experience with statistical data:</p> <p style="padding-left: 40px;">Studies done in the tablet classroom found that the approach was popular with students independent of their age or gender. In a 1st-year IT unit in Semester 1 2005, 71% (n=49) of students thought that the workshop mode integrating lecture, tutorial and practical was beneficial and kept them more on track. In the same semester, the drop-out rate after census date fell from 26% to 9%, while the pass rate increased from 66% to 77% (n=28). Studies the</p>	

following year showed a similar trend, with 65% of students actively preferring the approach to the more traditional delivery, compared to 19% who would have preferred the traditional approach.

In CUC107, both focus groups and interviews of staff and students were undertaken. The student response was similar to that of IT students.

(References:

Tutty, J., White, B., & Pascoe, R. (2005). "Experiences from a wireless enabled tablet classroom". *Australian Computer Science Communications*. Vol 27, No. 5, 165-172.

Tutty, J. and White, B. (2005). Learners in a tablet classroom, who does it suit? *Ascilite 2005 Conference*, Brisbane 4th-7th December.

Williams, G., White, B. and Tutty, J. (2006), "Mainstreaming Tablet Classrooms Engaging First Year Students", *9th Pacific Rim First Year in Higher Education Conference*, Brisbane 12th-14th July.)

The School's staff have been recognized for their work in the development of award-winning online learning resources and environments (2 x ASCILITEs, 3 x Carrick Citations), and been supported in this work by external bodies such as HP and ALTC/Carrick. The School proposes to continue its focus on improving the quality of teaching and learning, through the development of flexible, innovative modes of study to create a rich learning environment, and encouraging student engagement and interaction.

Where does this fit within "Future Framework"

- Pathways for learning (PFL)
 - Maximising access and educational opportunity for domestic and international students (2013)
- Professional, globally orientated education and training (PGOET)
 - Provision of high-quality student-centred education and training (2013)
 - Provision of innovative and technology-mediated approaches to teaching and learning that extend the University's capacity to deliver education and training at any time and location (2013)

Where does this fit within University's core business areas "5 Pillars"

The project fits within the following CDU Pillars:

- Teaching and Learning
- Community Access (Learnlink)

COST/BENEFIT JUSTIFICATION

The proposal has had sympathetic and positive feedback from local industry, and support for this initiative is currently being negotiated.

Associated internal labour costs will be partially offset by an ALTC/Carrick Grant recently approved for staff support of the Learning Spaces project (CDU will receive \$60,000).

SUMMARY

Estimated Total Costing		Estimated Total Income/Savings	
	\$`000		\$`000
Salary and Salary Oncosts			
*Base Salary	N/A		
Salary Oncosts (32%)		Income (Itemise)	
Sub Total		Sub Total	
Non Salary Costs e.g.			
<i>Materials (Please Itemise)</i>			
Furniture	50,000		
(computer tables, chairs)			
Refurbishment of workshops	50,000		
x 2			
(power outlets, access			
points, tablet storage and			
recharging facilities)			
Tablet PCs	342,100		
(Wireless x 150 with			
accessories)			
Capital	N/A	Savings (Itemise)	
(Attach Capital			
Bid form)			
Sub Total	442,100	Sub Total	
Total Costs	442,100	Total Income/Savings	
		NET BENEFIT	\$

*

DETAILED CASH FLOW

	2009	2010	2011
	\$'000	\$'000	\$'000
Salary and Salary Oncosts			
*Base Salary	N/A	N/A	N/A
Salary Oncosts (32%)			
Sub Total			
Non Salary Costs e.g.			
<i>Materials (Please Itemise)</i>			
Furniture (computer tables, chairs)	50,000	0	0
Refurbishment of workshops x 2 (power outlets, access points, tablet storage and recharging facilities)	50,000	0	0
Tablet PCs (Wireless x 150 with accessories)	114,033	114,033	114,033
Capital	N/A		
Sub Total			
Total Costs	214,033	114,033	114,033
Income (Itemise)			
Savings (Itemise)			
Total Income/Savings			
NET BENEFITS/(Loss)			

MISCELLANEOUS

Location: Casuarina Campus

A number of possible locations were initially identified as options, and some preliminary discussions with FAS and LIS have taken place. However, confirmation of the most appropriate locations is currently pending timetabling confirmation.

The rationale for the spaces chosen is that they:

- o be located in a range of geographic locations to integrate them with existing teaching areas;
- o occupy existing spaces with low usage and 50-student capacity;
- o are spaces that are administered by the centralised space allocation team to ensure equitable access for all courses;
- o are spaces that require minimal structural refurbishment to reduce costs.

As these workshops will be utilised heavily by common units with a 300-400 internal student class-space requirement, the use of these rooms will not result in loss of tutorial space since all three common units would be conducted in the tablet classrooms, thereby freeing up approximately 20-25 tutorial and prac class spaces each week.

The proposed locations for the 3 wireless workshops are detailed in the table below:

Room	Necessary refurbishment
Orange 1.3.15	None required

existing wireless workshop	
Purple 12.3.16	Refurbishment of space to include additional power outlets, wireless access points and tablet storage/recharging facilities: estimated cost: \$25,000 Computer tables and chairs (optional but desirable): \$25,000
Red 6.1.9-10	Essential (power etc): \$25,000 Desirable (furniture): \$25,000

An alternative location for the third workshop would be:

2 nd floor, library	This area would need to be substantially remodelled. Estimated costs would be \$60,000 plus construction costs (3 walls and 2 entrances, dividers) and some archive costs.
--------------------------------	--

Impact on other areas

The tablet classrooms have benefits across a large proportion of the university: Faculty EHS/Faculty LBA/Common Units/All Schools.

At present the courses utilising the Tablet PC lab are:

- Common Units (CUC107),
- Bachelor of Aboriginal And Torres Strait Islander Studies
- Bachelor of Education
- Bachelor of Information Technology:
- Bachelor of Business

Other CDU areas that have expressed strong interest in using the facilities if available are:

- Common Units (CUC100, CUC106),
- Bachelor of Environmental Science
- Bachelor of Creative Arts And Industries
- Master of Tropical Environmental Management

The usage by these groups alone would be over 80 hours a semester.

The lists above only represent groups who are currently aware of the existence of Tablet PC technology. Other Learnline/web-augmented course like Bachelor of Laws, Psychology, Nursing, Teaching etc would also benefit from using these spaces if they became available.

Index to attachments and /or additional comments/explanation/business plan

Intangible Benefits

While OH&S is not a major justification for this application, the preference for tablet learning spaces over normal computer labs is partly premised on the OH&S problems presented in a computer lab if the computers are used as part of group work and discussions or in conjunction with facilitation from the front of the room.

Proposer / Director VET
DVC, Dean, Executive Director: Supported/Not Supported
Comments
Vice Chancellor Approved/Not Approved
Comments
Office Use Only : Actioned by Budget Officer ----- Date-----

SALARY and SALARY ONCOST WORKSHEET (Double Click in Table to activate calculations)

Costing

Salary (refer CDU Salary Salaries Book available on WEB:
http://www.cdu.edu.au/pmd/documents/salbk2005_004.pdf)

	`2009	`2010	`2011
	\$	\$	\$
Position/Name/s			
eg Smith 5055 Level A Step 1 20%	10,000	8,671	
eg Vacant 4120 Vet Cat 2 Step 8	59,460	59,460	59,460
eg New Vet Cat 3 step 3	69,277		
Sub Total	<u>138,737</u>	<u>68,131</u>	<u>59,460</u>
Salary Oncost (32 %)	44,396	21,802	19,027
Total Salary and Oncost	<u><u>183,133</u></u>	<u><u>89,933</u></u>	<u><u>78,487</u></u>