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The National Centre of Science, Information and Communication Technology, and Mathematics Education for Rural and Regional Australia

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M-Learning Landscapes

Project Title	M-Learning Landscapes: e-learning for ubiquitous school science education
Project Team	Dr Andrew Fluck (SiMERR Tasmania)
Period	June 05 – December 06
Funding Agency	SiMERR
Organisational Base	SiMERR Tasmania

Description

M-Learning Landscapes aimed to create e-learning opportunities using digital mobile technologies. The project assisted teachers in four high school science classes to adapt materials for download into student handheld computers and developed a teaching template for using digital mobile technologies with students. The project established web logs for student and teacher tutorial assistance. Students also linked to web-based learning objects designed by the Australian Government's The Le@rning Federation. Students and teachers completed set tasks and were encouraged to submit digital portfolios of school-based science activities. The project concluded with focus group interviews, a videoconference for feedback and evaluation of the learning experience.

The project aimed to provide a motivating learning environment for students in regional centres through the adoption of handheld computing technology. This sought to ameliorate the difficulties students face as a result of distance and other situational disruptions to education. Combined with the online LearnSpace, students had the opportunity to extend their learning. In addition, the four teachers came together in a mini-conference to present what they had learnt and then collaborated to design a unit of work based on a rat dissection using the Palms to provide the instructions as well as for the students to use to write up their findings. The project concluded with focus group interviews, a videoconference for feedback and evaluation of the learning experience.

Participants

Catholic Education Office, 4 schools, 4 teachers, 130 students

Findings

Some schools were delighted with the impact of the Palms, reporting there was a significant change in class dynamics because of the ubiquity of these handheld devices; the students were more engaged as a group; it was easier to share resources; they were more willing to help others; students were excited about learning. Other schools were less enthusiastic, with the teacher saying that some students developed quite a negative attitude towards the handheld devices.

Technical support arrangements and the degree to which students were allowed to use the handheld across the curriculum were important. The Palms infringed mobile electronic devices policies, but some schools allowed their use beyond the science lab. One of the four schools has adopted a 5-year ICT Development Plan with a strategic objective to provide 1:1 computing devices to all students by 2010. Teachers also had to deal with students leaving their Palms at home and not having them charged.

Outcomes

Conference presentation

- Fluck, A. & Robertson, M.E. (2006) User-owned computers: friend or foe in schools? Paper presented at the It's up here for thinking! conference, Cairns, Australia.

Grant application

- Robertson, M.E. & Fluck, A. (2006-8) 'Always On' Learning Communities: M-Learning Landscapes Transforming School Cultures. ARC LINKAGE Research project.

Impact

Further research is being undertaken as part of an ARC linkage grant 'Always on' Learning Communities. A key question is to compare the learning opportunities from mobile devices compared to fixed computer labs.

Related documents

Click here to download this infosheet.

Click here to download the report on this project.

Click here to visit this project's website.