Chapter 14

Learning without Boundaries:
Designing and Teaching an E-Learning Program in Horticulture and Environmental Science

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ABSTRACT

Technological innovations have transformed the boundaries of research priorities within the Vocational Education and Training (VET) sector. In line with research priorities set by NCVER, Swinburne University of Technology has made an ongoing commitment to the development of research that aims at improving the flexible delivery of program for students in the Training and Further Education (TAFE) sector. The present study showcases a research project conducted at Swinburne. The aim of the project was to design an e-learning program for students studying within the Department of Horticulture and Environmental Science, with an additional focus on improving students' reading comprehension of hypertexts in the subject-specific context. This case study also discusses social and educational, technological, economic as well as political/organizational issues the project had to deal with.

ORGANIZATION BACKGROUND

Swinburne University of Technology in Melbourne, Victoria, is a dual sector (Higher Education and Training and Further Education, i.e. TAFE) institution, well-known in Australia and overseas. Swinburne was established in the Melbourne's suburb of Hawthorn in 1908 and has earned its enviable reputation for the excellent quality in teaching and learning as well as constantly growing research.

The university was ranked the 4th best in Australia for its teaching and learning quality (Swinburne University of Technology, 2005b). Teaching and learning enhancement is one of the strategic priorities of the university. Student surveys conducted at Swinburne consistently demonstrate good results, and thus are indicators of quality educational outcomes (Young, 2008).

Swinburne University is one of the few universities in Australia that offers a range of programs and courses, from apprenticeships to PhDs. Swinburne has created a number of study pathways that allow

students to move from TAFE to Higher Education, from TAFE based VCE courses into TAFE programs or from Higher Education to TAFE. The university is committed to providing students with great flexibility to complete their courses. They can choose different study options, including full-time, part-time or on-line. Swinburne was one of the first universities to develop and adopt Industry Based Learning (IBL), a program that places students directly in industry for vocational employment as an integral part of the course structure. Thus, the university maintains strong and important links with industry (Swinburne University of Technology, 2008). According to the University's Statement of Direction 2015 (Swinburne University of Technology, 2005a), 'Swinburne will be recognized for its flexible approaches to learning and teaching which will create an engaging, stimulating and modern environment in which students can learn in different ways and in different places to achieve their desired outcomes'.

According to the Vice-Chancellor of the University, Ian Young (2008), a sound Swinburne budget of 300M has been developed "…through a transparent and formula-driven revenue distribution process, strong student growth, growing commercial income and the achievement of significant efficiencies across administrative activities of the University."

SETTING THE STAGE

The rapid development of information and communication technology (ICT) has brought its changes to the education sector. In particular, the e-learning concept has been widely included in contemporary education, since it blurs the limitation of time, distance and space. In addition, it offers flexibility and convenience to both learners and educators by providing social and technological advantages. These changes also have implications for governments and their policies as well as education sectors which implement innovation programs to reflect changing needs and expectations.

The introduction of ICT has evolved and will continue to evolve, forcing people to keep up with these changes and the challenges that they bring. In the area of education, ICT has reshaped the meaning of "literacy", which is a complex concept that includes the ability to read and comprehend the various forms of conventional texts and internet-based texts or *hypertexts* (OECD, 2001).

The era of web literacy or technological revolution has not evolved without its critics and has been regarded by some as signaling the end of print-based materials and the skills associated with them. However Kellner (2002) has argued that this technological revolution brings the opportunity to reshape education to better serve democratic needs and to prepare citizens for a global multicultural world. Also Kellner (2002) stresses that the debate about the role of computers in education should be about how they are used in education not whether they are good or bad.

The use of ICT in learning and teaching will continue as new technological tools are made available for the purpose of education. Policies promote the development and use of these technological tools which are regarded as innovative and important in the area of education. By utilizing these tools people will develop skills needed for the workplace as well as life-long skills in general. Some ICTs such as the Internet, email and digital media are now used routinely in many schools across all sectors, primary, secondary and tertiary.

Since the early 1990s in the state of Victoria, Australia, it has been a government educational policy to introduce technology into the curriculum and equip students with computer knowledge (Snyder, 1997). The objectives of the Victorian government policy reflect a vision for the future that includes the use of IT in schools. For example, in tertiary institutions where independent learning is a feature of many courses, Web Course Tools

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