Chapter IX

Preparation for E-Learning: An Australian Study (2001)

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ABSTRACT

University students require considerable computer literacy to enter and then succeed at their studies. Many courses, whether technology focused or not, are using advanced Web technology to deliver digital content via e-learning. This chapter explores the changing nature of information and communication technology (ICT) literacy of university students and explores whether gender and age factors affect student’s ICT literacy and Web usage. The primary focus of this chapter is to ascertain if transition or freshman students are prepared for the e-learning regimes they will encounter in higher education. Main findings show that there is a significant difference in how females and males use the Web and first-year (transition) students come to university with advanced ICT and Web literacy.

INTRODUCTION

Are transition students entering university with enhanced ICT and Web skills and are these students leading the e-learning curriculum within university courses? Do university students change in their patterns of Web usage? Does gender have an impact upon the patterns of Web usage? Are transition students ready for “e-learning” and can universities rely upon the incoming students having superior ICT and Web literacy? This chapter seeks to add to the dialogue by presenting the latest results in a study looking at the changing ICT and Web skills of university students.
This study is part of a longitudinal project that tracks the changes in the ICT profile of university business students within the Victoria University of Technology.

**BACKGROUND**

**ICT and Web Literacy**

The OECD commissioned the PISA (2001) project to report and track the reading, mathematical and science literacy of students leaving K-12 schools. The PISA project seeks to explore:

“... the increasing role of science, mathematics and technology in modern life, the objectives of personal fulfillment, employment and full participation in society increasingly require an adult population which is not only able to read and write, but also [are] mathematically, scientifically and technologically literate.”

The PISA project has focused on reading literacy in the 2000 survey and will focus on mathematical and technological literacy in 2003 and scientific literacy in 2006. The International Adult Literacy Survey (IALS) (ISR 122, 1999) studied the literacy patterns of the OECD countries in 1994 and 1995. The 1995 report commented:

“While most people can read, the real question is whether their reading and writing skills meet the challenge of living and working in today’s information-rich and knowledge-intensive society and economy.”

The IALS report identified gaps in the “knowledge society” where re-skilling the workforce tends to narrow the pool of highly skilled workers rather than increasing the spread of skilled workers. The report went further and placed Australia in the bottom rank of OECD countries when looking at basic reading, teamwork, problem solving and ICT skills. In 1999 the Adult Literacy and Lifeskill Survey (ALLS, 1999) formed the information and communication technology (ICT) team to further develop the ICT component of the International Life Skills Survey (ILSS). The ICT team incorporated Brinkley’s framework (ALLS, 1999) and incorporated five ICT areas:

- general use of ICT;
- computer use and skills;
- use in specific contexts;
- benefits of computer use;
- receptivity of computer use among non-users.
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