Chapter 18
E-Learning and M-Learning: Challenges and Barriers in Distance Education Group Assignment Collaboration

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ABSTRACT
This research explores the relationship between e-learning and m-learning by investigating distance education students’ use of a learning management system, “Interact,” for virtual team work. The paper explores their experience of online collaborative group assignments in the subject “Information Management in Organisations.” International and local students were grouped. Each group undertook a case study project to propose solutions for identified problems in their chosen organisations. Students developed their assignment in wikis and used various tools for communication and document storage. An anonymous web-based survey was conducted after students completed the group assessment. The results reflected a wide range of factors including technology use, working with students from a different country, and challenges they faced completing group assessment online. Their feedback on their e-learning experience indicated the need for m-learning to address their concerns. The findings indicate a need for m-learning to support e-learning further, which could significantly improve the facilitation of online collaborative group assignments.

INTRODUCTION
There is an advancement in teaching material delivery, with institutions moving away from students passively receiving print-based information such as paper materials from instructors to laser disks (or CD-ROMs) to web-based interactive learning. The School of Information Studies (SIS) at Charles Sturt University in Australia is the largest library education provider in Australia. It has been offering distance education for more than 30 years with no students enrolled in the face-to-face teaching mode. In the past, it adopted email and discussion forums to supplement print-based...
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information delivery. In recent years, in addition to the learning management system ‘Interact’ (also known as ‘CSU Interact – Sakai’), popular technology and tools like Skype, GoogleDocs, podcasting, chat rooms, wikis, blogs, Facebook and Second Life have been employed to increase class member interaction and engagement in distance education.

This paper reports a group assignment conducted in the subject1 “Information Management in Organisations” offered in the third year of an undergraduate program ‘Bachelor of Library and Information Management’ in the first semester, 2009. In this research, the learning experiences of distance education students in collaborating with other students in group assignments in the subject using e-learning technology were explored. E-learning here refers to the use of technology to support online learning and teaching. In particular, it discusses the use of wiki, chat room, group mail, announcement and common repositories in a private project site provided to each group in Interact. Students used e-learning technology for their group assignment communications interaction and collaboration work regardless of their geographical locations. Students communicated and collaborated with group members at pre-arranged dates and times wherever they were. The use of e-learning technology by distance education students was mandatory in their group assignment. The subject coordinator set up the learning environment with all tools made available in Interact where the students used the tools for communication, collaboration, interaction and participation in assignment development online. In preparing the learning environment with group work in mind, group assignment activities and the required use of Interact tools were carefully considered, pre-determined, and constantly monitored throughout the delivery of the subject. This was to ensure that students could reap the benefits of collaborative learning, hone team work skills and develop technological skills.

Many students opted for distance education in order to do their studies at times of their convenience. They wanted to plan their assignment tasks at a flexible time to fit into their normal routine and commitments. The results indicate that doing group work using e-learning technology purely from a home or office desk top computer could restrict their physical whereabouts, where the Internet access and computer use are restricted to fixed locations. Having considered the student learning needs, group assignment collaboration requirements and the technology to be put in alignment with the purposes of online group assignment, this research proposes a framework of learner requirements in online group work in distance education. It also discusses how the use of supporting portable m-learning devices such as iPhone, palm top and netbook could address learning needs and reduce some of the physical location restrictions.

This article adopts the following structure. The literature review section discusses e-learning and m-learning. It also explores the use of e-learning technology in distance education and highlights a gap in research. A methodology section follows to explain the case study method used in this research. The data collection techniques employed was a web-based survey and classroom observation. The results and discussion section explains the analysis of the results in this research. It also discusses the student experience in their use of e-learning technology in their group work such as their satisfaction with technology, the technology they actually used in their group work, challenges they faced in the online environment, and the possibility of m-learning. A conceptual model developed is based on the findings of this research to propose changes in online group work in distance education. The last section concludes this article. In adopting e-technology, this research stresses the importance of considering mobile devices to support personal and mobile learning (or m-learning).
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