

Chapter 20

Enhancing Pedagogy with mLearning

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ABSTRACT

This chapter reports on a study of student mobile practices in one high school in Tasmania. This school provided all year 7 and 8 students with iPod Touches, and aimed to explore new forms of pedagogy that reflected a more relevant and contemporary curriculum for young people in the 21st century. Surveys and interviews were conducted with students to explore the effectiveness of the school's program, as well as to understand the kinds of common practices students engaged in with mobile technologies in general. Surprisingly, the results revealed that the school practices were emerging somewhat slowly and students reported mixed comments about the program. Based on the research findings, recommendations are offered to teachers in order to maximize the benefits of mobile learning (commonly referred to as mLearning) to enhance pedagogy.

INTRODUCTION

The idea of a single portable device that can make phone calls, take pictures, record audio and video, store data, music, and movies, and interact with the internet, all of it, has become so interwoven into our lifestyles that it is now surprising to learn that someone does not carry one (Johnson, Levine, & Smith, 2009).

mLearning involves the utilisation of mobile technologies to help achieve learning outcomes (Freysen, 2004), and is at a stage where new pedagogies are being developed, identified, and researched (Frohberg, 2006) to discover the best ways to leverage current practices with the technology in classrooms. As an evolving research area, many issues in mLearning have not yet been exhaustively covered (Goh & Kinshuk, 2006). As a concept, mLearning is unique in offering students access to learning *anywhere, anytime*. Despite

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the potential benefits of this increased access to learning, more must be learnt about students' mobile practices when not at school, to discover if mLearning can live up to its potential. Whilst mLearning studies have examined the effects of student engagement in school-directed mobile practices *during* school (Duncan-Howell & Kar-Tin, 2007; Fujimua & Doi, 2006), no research has yet examined the combined sets of practices students engage in both in and out of school. The question in this research was to ask whether students who were engaged in mLearning as part of their everyday curriculum also extended that learning beyond school.

This study therefore investigated the self-initiated and school-directed mobile practices of high school students at one high school in Tasmania. In particular, the study was designed to examine how effectively new pedagogies utilizing mobile technology equipped students as 21st century learners.

BACKGROUND

According to socio-cultural theory, learning takes place in a social context, with learners forming and re-forming concepts during collaborative group work (Rogers, 2002). mLearning is ideal for group work as it facilitates rapid access to other users, regardless of location (Taylor et al., 2006).

Both the capabilities of mobile devices and their wide context of use contribute to their ability to foster collaboration (Naismith, Lonsdale, Vavoula, & Sharples, 2004, p. 15).

In similar support is Muyinda (2007) who stated that

mLearning allows more flexible and immediate collaborative options and facilitates controlled learning in contextual situations (p. 103).

A key concept within the socio-cultural theory of learning that is specifically relevant for mLearning is collaborative learning. Sharples (2002) stated that mLearning promotes, facilitates and enhances collaborative learning. Mobile devices can easily communicate with other similar devices, enabling learners to share information (Taylor et al., 2006), and can be connected to a shared data network to further enhance possibilities for communication (Shuler, 2009). By sharing content, knowledge, experiences and even gossip, learners can develop communities of practice whilst engaging in mLearning (Wenger, McDermot, & Snyder, 2002).

mLearning has evolved alongside the mobile devices used to deliver it. In a study by Murray and Sloan (2009), Australian and Singaporean students from two schools collaborated wirelessly via the internet on a project that utilized iPod Touches. Students responded to each other with views of what it meant to be Australian or Singaporean. Such collaborative projects are made relatively easy by developments in ICT and mobile technology.

Cobcroft, Towers, Smith, and Bruns (2006) stated that

mobile technologies are well suited to supporting learners' engagement in creative learning activities (p. 6).

Similarly, McGreen and Sánchez (2005) stated that

there is great potential for mobile devices to facilitate and encourage the creative process for 21st century learners (p. 241),

however stressed that little research has been conducted in this area.

Most theories of learning fail to capture the distinctiveness of mLearning (Taylor et al., 2006), as they are theories of teaching, predicated on the assumption that learning occurs in a classroom

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