Not Just Playing Around: The MoLeNET Experience of Using Games Technologies to Support Teaching and Learning

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ABSTRACT

MoLeNET is a unique collaborative initiative, currently in its third year, which encourages and enables the introduction of mobile learning in English post 14 education via supported shared-cost projects. Mobile learning in MoLeNET is defined by MoLeNET as “The exploitation of ubiquitous handheld technologies, together with wireless and mobile phone networks, to facilitate, support, enhance and extend the reach of teaching and learning.” MoLeNET projects use a wide range of handheld devices with their learners including two handheld game platforms: the Sony PSP and Nintendo DS. A small number of projects have also experimented with educational and therapeutic use of the Nintendo Wii game console and experienced considerable success in engaging reluctant learners and supporting learners with difficulties and/or disabilities. This paper explores the impact that mobile game technologies have on teaching and learning for those involved in MoLeNET, including the development of academic and social skills and the improvement of mobility and health related issues.

Keywords: Disability, Education, Health, Literacy, Mobile Learning, Nintendo DS, Numeracy, Sony PSP, Wii

INTRODUCTION

The Mobile Learning Network (the MoLeNET programme; www.molenet.org.uk) uses a shared cost funding model with the Learning and Skills Council (LSC, now the Skills Funding Agency: www.skillsfundingagency.com) providing capital funding to procure handheld and supporting infrastructure technologies to introduce and embed mobile teaching and learning. The participating institutions contribute to the cost of the LSN (www.lsnlearning.org.uk) support and evaluation programme which provides training, support, mentoring, research resources and systems. Over twenty thousand learners and four thousand teaching staff took part in phases one and two of MoLeNET (2007-2009). In the third and current phase (2009/10), a further eighteen thousand learners and three thousand teaching staff are expected to take

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part from over seventy colleges and schools across England.

Throughout the MoLeNET programme, the projects involved have purchased a range of mobile devices and technologies depending on their individual aims and objectives, and the project participants. Such technologies include mobile phones and Smartphones, personal digital assistants (PDAs), ultra mobile personal computers (UMPCs), MP3 and MP4 players, digital still and video cameras, specialist scientific survey equipment, voting systems, handheld games devices (Sony PSP, Nintendo DS) and, in some cases, Nintendo Wiis. They have also purchased the wireless technology and servers required to maximise the potential of the mobile equipment. The number of games technologies purchased by MoLeNET projects (Figures 1 and 2) increased substantially after the first year in which they represented only 3% of all handheld technologies purchased. In year two 22% of all handheld technology purchases were games technologies.

The MoLeNET programme is far reaching and diverse in its application and impact (Attewell, Savill-Smith, & Douch, 2009). However the research findings reported in this paper specifically relate to the use of games and games technologies for teaching and learning. In particular five case studies are presented in which MoLeNET projects used the Nintendo DS and Nintendo Wii to support teaching and learning and to enhance experiences and outcomes for learners.

Further information about MoLeNET and the projects involved can be found at www.molenet.org.uk.

**DIGITAL GAME-BASED LEARNING**

Digital game-based learning is very much advocated by authors such as Prensky (2001, 2006) who asserts that digital games can support the development of an array of skills, including decision making, communication, memory and spatial awareness. He explains that the main reason why learners voluntarily play games for extended amounts of time is because they enter a state of “flow” (Csikszentmihalyi, 1990) whereby the level of play challenges the player such that they become highly involved but is not so difficult that the player loses focus. Therefore, with a combination of opportunities for skills development and probable high levels of engagement, digital games have the potential to be very effective teaching and learning tools. Furthermore, Oblinger (2004) explains that factors that promote learning, such as individualisation, feedback, assessment and social

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**Figure 1. Pie chart to show range and spread of devices purchased in MoLeNET phase 1**
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