

Chapter 58

The iPad in the Classroom: Three Implementation Cases Highlighting Pedagogical Activities, Integration Issues, and Teacher Professional Development Strategies

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ABSTRACT

Mobile learning devices, such as the iPad tablet, have the potential of providing unique pedagogical strategies for the K-12 classroom. One of these strategies is digital storytelling, a constructivist approach using digital tools to create and share short stories. This chapter describes three iPad implementation projects involving multimedia database and digital storytelling creation that underscore the successes and challenges of these devices and the new classroom activities they make available to educators. The results of these projects suggest that the iPad is one device that can successfully support and sustain a variety of multimedia creation and use in the classroom. Specifically, this chapter reports on research that identifies mobile pedagogical strategies on the iPad, such as mobile small and large group demonstrations, student-directed control-and-playback activities, backchannel (microblogging) conversations, Web-based research activities, and digital storytelling. As with other types of technology implementations, management and process challenges exist that should be considered. This chapter details some of the challenges that are specific to iPads and multimedia creation on these devices.

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OVERVIEW

Mobile learning devices have the potential to provide unique pedagogical strategies for the K-12 classroom. Touch screen tablet devices, such as the Apple iPad, provide student, teacher, and content interactions that allow for new types of pedagogical strategies using digital media (Ally, 2009; Ostashewski & Reid, 2010a). Before these new strategies can be implemented in the classroom, hardware, software, and student interaction activities need to be planned. One of the pedagogical strategies that mobile devices have been used for successfully in the past is the creation of digital stories, or digital storytelling (Sadik, 2008). While tools for digital storytelling have evolved over the past few years and now include iPad devices, among many others, we define digital storytelling as the practice of telling short multimedia stories using digital technologies regardless of the device used.

This chapter presents three iPad implementation cases. The first case examines the integration of an iPad multimedia video database into classroom activities (Ostashewski, Reid, & Ostashewski, 2009; Ostashewski & Reid, 2010b; Ostashewski, Reid, & Ostashewski, 2011). The second case examines the successes and challenges with the implementation of a class set of 15 devices into Grade 6 classroom activities (Reid & Ostashewski, 2011a). The third case explores teacher professional development and digital storytelling in the classroom as the keystone to iPad implementation in five rural schools (Reid & Ostashewski, 2011b).

INTRODUCTION

The focal point of the research presented in this chapter is the implementation of the Apple iPad as a mobile learning device in K-12 classrooms. Although other “iDevices” such as the iPod Touch and iPhones can provide similar functionality in

the classroom (Kervin, Reid, Vardy, & Hindle, 2006; McCombs, Houk, Higginbotham, Johnson, & Liu, 2006), the iPad’s larger interactive screen size allows for new kinds of teaching and learning opportunities. The multi-touch interactive capabilities of the iPad are a source of the teaching and learning opportunities that make this technology easier to use in mobile learning situations (Watlington, 2011). Despite the fact that “iDevices” have been available for some time, K-12 teachers continue to need guidance on how to successfully utilize new technology tools in meaningful ways. The ability to display multimedia (Kervin, Reid, Vardy, & Hindle, 2006; Vardy, Kervin, & Reid, 2007), control media playback using touch interactions, and easily access larger multimedia collections are the features of the iPad that make it a new class of teaching and learning tool (Watlington, 2011). Furthermore, educational leaders such as school district managers and administrators who are considering implementing these kinds of devices need deeper comprehension of the value of such technology initiatives and the types of support needed to bring about meaningful learning projects. The potential of mobile tablet devices regarding new kinds of learning opportunities for students is the focus of the research explored in this chapter. Using these devices as electronic book delivery platforms has significant implications for education, but is outside the reach of the research presented here.

Research identifying the successes and challenges of using mobile technologies in educational settings continues to be a theme in the literature as these handheld devices become more mainstream (Ali & Irvine, 2009; Ally, 2009; Maag, 2006; Schmitt, Rodriguez, & Clothey, 2009). As mobile electronic devices have evolved their functionality changes and these changes affect how the mobile devices can be used in educational situations. One of the changes in the development of mobile electronic devices is the accessibility of mobile databases that drive the user interface of the device. With the introduction of the iPod

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