Chapter 8
Evaluating iPad Applications: Are They Readable?

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ABSTRACT

Traditional classrooms based solely on textbooks and print-based reading material no longer fit ways students gain knowledge. Advances and innovations in technology are changing the way students of all ages learn. The latest innovation, smaller tablet style computers such as iPads, is further changing the way technology is used in schoolrooms. Popularity of these devices and the ability to download applications to them opens a world of uses for such devices in classrooms. The appropriate use of these devices and choice of appropriate applications for educational purposes provides a new realm of research opportunities for scholars. Educators and administrators need to feel confident capital expenditures on tablet devices will fulfill the promise of a positive impact in classrooms. This chapter explores the readability of one of the more popular applications for iPads in an attempt to discover whether reading levels of the application are appropriate for students in elementary, middle, and high school.

INTRODUCTION

Classrooms are changing. New technologies are emerging more rapidly than ever and expectations by parents and students are that they will be integrated into classrooms just as quickly. School districts are spending large sums of money to purchase the latest technological devices and applications necessary to allow computers to become primary tools for learner-centered activities. Innovations in computer technology and applications downloaded onto them are changing K-12 learning. The latest trend relates to the integration of tablet and hand-held devices.

The iPad was launched onto the market approximately two years ago and nearly three million devices were purchased within the first weeks of its debut (Murray &Olcese, 2011).Other tablet devices have since made it to markets to compete with the iPad, but it is the iPad that continues to

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set standards in such devices (Fredette, 2012). The popularity of the iPad, and tablets like it, has piqued the interest of educators and is causing schools to implement pilot projects to see how they can be integrated into curricula (Waters, 2010).

Tablet computers are quickly becoming more preferred than laptop computers and laptop carts. Tablet computers are easy to transport, are less expensive, and have a much longer battery life than laptop computers (Electronic Education Report, 2011). In addition, tablets are customizable and highly portable. They are also smaller and lighter than laptop computers, which makes the tablet easier to handle than unwieldy laptops. Tablets can be made to recognize handwriting for students who do not know the keyboard, and tablet keyboards are smaller which is more accommodating to tinier hands of elementary and middle school students (Millard, 2005). In addition to these features, a broad range of content is available through downloadable applications. Apple is leading the field in applications for tablets, claiming that more than one million apps and 250,000 books have been downloaded since the release of the devices (Waters, 2010).

Another factor speeding up the adoption of tablet devices is the rapid growth of wireless networks in schools and communities across the nation. While wireless technology requires a significant outlay budget for initial implementation, wireless networks allow for easy expansion without additional cost of running wires, cables, or construction costs (Millard, 2005). The 2010 National Center for Education Statistics (2010) report stated in 2008, 39% of our nation's public schools had wireless technology throughout the building. This is up from approximately 15% in 2002 (Millard, 2005). Access to wireless networks allows for greater mobility within classrooms because students are not tied to cables and desktop computers.

Due to an increasingly large-scale use of computers in classrooms and overwhelming advances in speed and capacity, scholars are faced with large-scale availability of such devices and applications aiding in the process of teaching and learning. Tablet devices can further enhance and complement computers currently in use in classrooms. There is plenty of publicity about potential for iPads and other tablets that download applications to improve student literacy. Because of the recent emergence of tablet technologies, this is a vastly untapped area of research (Murray & Olcese, 2011).

The tablet devices are extremely customizable through the use of various apps. The Apple (2012) iTunes App Store boasts a large selection of education-specific titles. Educators can download apps to meet the needs of specific students. However, most of the currently available apps are focused on lower-level thinking skills, which is inappropriate to use with older and higher-level thinking students. Very little research has been conducted regarding instructional design of applications and ensuring they are appropriately developed for their targeted age groups. Therefore, finding the best applications to meet reading and writing needs of students is imperative. Because teachers in all disciplines are now considered reading teachers, matching reading materials used in classrooms to student's reading abilities is important for student success. This is just as critical for technology applications as it is for text-based resources. If the reading level of the app is too difficult, students become frustrated and will not understand what they are reading. If the reading level is too easy for students to read, those materials are not promoting and improving students' reading abilities (Kirk & Kiekel, 2010).

The new definition of literacy now means students must have an ability to decode all forms of visual and textual information (Frascara, 2004). Much of the currently available literature regarding readability ignores the fact that images are a large part of the readability puzzle. Readers must be able to comprehend all visual elements, including images and words, in order to successfully understand all aspects of the reading process.