Chapter 12

Using iPads and Mobile Technology for Children with Developmental Disabilities:
Facilitating Language and Literacy Development

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ABSTRACT

With increasing access to iPads and mobile technology in both home and school settings, evidence regarding how best to use this technology to enhance language and literacy learning is lacking, particularly for children with developmental disabilities. As a comprehensive review, this chapter discusses the use of iPads and mobile technology in the language and literacy development of this population. It concludes that while iPads and mobile technology provide opportunities for language and literacy development, the inherent challenges and limitations of this technology warrant attention from parents, educators and speech-language pathologists. iPads and mobile technology may be a valuable accelerator for the language and literacy development of children with developmental disabilities if used properly; however, improper or careless usage can become a distraction that further delays the communication development of this population.

INTRODUCTION

Given that the first iPad was introduced only five short years ago, the impact on education for children both with and without disabilities is striking. Although there is frequent access to iPads, iPods, iPhones and other mobile technology devices using iOS, Android, and Windows operating systems in both home

and school environments, evidence regarding how best to use this technology to enhance language and literacy learning is lacking particularly for children with developmental disabilities. This chapter provides a comprehensive review of the role of iPads and mobile technology in the language and literacy development of children with developmental disabilities.

First, this chapter provides information on categorizing the primary function of various applications targeting language and literacy development in order for parents and professionals to better understand how this technology can be utilized to achieve educational goals. The types of applications discussed include communication applications that provide an Augmentative and Alternative Communication (AAC) system for children with complex communication needs. These applications are contrasted with applications that are specifically designed to provide stimuli for expanding receptive and expressive language. Furthermore, applications that specifically target components of written language (i.e., literacy) development are reviewed.

Within these three categories of applications targeting language and literacy development (i.e., apps for communication, apps to facilitate language, and apps to facilitate literacy), we first provide information on populations for whom the applications are appropriate, the theoretical basis for use of mobile technologies, and practical rationales for their use. Second, research on evidence-based practice associated with the use of different applications is discussed. Third, the chapter provides challenges and potential solutions associated with using iPads and mobile technology for language and literacy development. Each section ends with a summary as well as additional resources for comparing and contrasting available applications.

The goal of the chapter is to provide readers with a comprehensive overview on the potential of iPads and mobile technology to facilitate the language and literacy development of children with developmental disabilities. In addition, the chapter proffers guidance regarding the use of iPads and mobile technology to achieve best practices in facilitating the language and literacy skills of this population.

BACKGROUND

In the brief interval since its introduction, the iPad has had a major impact in many educational and therapeutic situations including communication options for persons with complex communication needs (CCN) (Light & McNaugton, 2012; McNaughton & Light, 2013; RERC on Communication Enhancement, 2011), facilitating language development (Fernandez, 2011a), and literacy instruction for children who are typically developing and for children with disabilities (Beschoner & Hutchinson, 2013). The iPad is of course one of many mobile technologies that provide apps for education and communication. In addition to iPads there are numerous tablets available on the Android operating platform (Higginbotham & Jacobs, 2011) as well as a number of different smartphones that can also be used with apps albeit with a smaller display. However, due to the popularity of the iPad, this chapter focuses on the use of the iPad tablet as well as the iPhone and iPod Touch that were used to introduce many of the apps now used on the iPad. This approach is justifiable since there was much development with Apple-based apps before the introduction of the iPad (Fernandes, 2011b) and the fact that much research examining the use of mobile technologies for AAC has involved the iPod Touch (Achmadi et al., 2012; Kagohara et al., 2013; Kagohara et al., 2010; Kagohara et al., 2012). Additionally, the ideas developed in this chapter are easily adapted to similar devices produced by other manufacturers.

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