

Mobile Phone Use and Children's Literacy Learning

E**Jaime Puccioni***University at Albany (SUNY), USA***Lisa R. Michaels***University at Albany (SUNY), USA*

INTRODUCTION

Mobile phones are relatively inexpensive computing devices commonly found in many low and high income households in the United States as well as communities in developing nations. There is a significant body of research examining the ways in which mobile technologies support children's learning (Druin, 2009). More recently, researchers have begun to explore the use of mobile phones as a means to improve literacy learning, particularly in underserved communities (Alismail et al., 2010; Horowitz et al., 2006; Revelle, Reardon, Mays Green, Betancourt, & Kotler, 2007). Literacy encompasses reading, writing, speaking, and listening (NCTE, 2013). The chapter aims to synthesize current research examining the ways in which mobile phones support children's literacy learning in home and school-based environments and offer suggestions for future literacy research. The chapter begins with an overview describing how mobile technologies, in general, support literacy learning. Current research examining the ways in which mobile phone use shapes children's literacy learning is synthesized next. The paper concludes by discussing directions for future research.

OVERVIEW

Mobile technologies have revolutionized the ways in which children and adolescents access and participate in literacy-related activities. The creation

of mobile device applications, for example, has contributed to children's successful acquisition of critical early language and literacy skills (Chiong & Shuler, 2010; Revelle et al., 2007). Portable technologies, such as the iPad, iPod touch, E-readers, handheld gaming devices, and mobile or cellular phones provide learners, of all ages, with opportunities to engage in multimodal and traditional print texts (Auld, Snyder, & Henderson, 2012; Kam, Ramachandran, Devanathan, Tweari, & Canny, 2007; Wong & Looi, 2010). These twenty-first century technologies also connect individuals with web tools and internet spaces where they may independently design their own content and set a pace for their learning. Mobile technologies provide greater flexibility to differentiate literacy learning opportunities which enable parents and teachers to address children's diverse range of abilities, needs, and interests (Horowitz et al., 2006; McClanahan & Stojke, 2013; Richardson, 2008). Additionally, these ubiquitous resources promote the formation of unique parent-child relationships, as well as, interactive learning communities within the traditional school setting (Auld et al., 2012; Bederson, Quinn, & Druin, 2009; Horowitz et al., 2006; Jenkins, 2006; Wong & Looi, 2010).

Educational technology and media have also become significant vehicles for preparing young children to engage in school-based literacies (Fisch, 2004; Linebarger, 2001; Linebarger, Kosanic, Greenwood, & Doku, 2004; Mitchell & Fox, 2001). Numerous educational games have been developed to support learning in other content

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areas such as mathematics, science, and global studies (Clarke & Besnoy, 2010; Kim, Buchner, Kim, Makany, & Taleja, 2012; Oakley, Pegrum, Faulkner, & Striepe, 2012). Myriads of websites and mobile device applications have been crafted to entertain and foster children's development of essential literacy skills needed for reading, writing, and speaking (Druin, 2009; Oakley et al., 2012). Digital books, also known as E-books, are often accessed on mobile phones thereby providing a valuable resource for all children possessing a range of reading abilities and literacy needs (McClanahan & Stojke, 2013). These digital technologies provide multiple entry points for children to actively engage in a variety of literacy learning events (Bederson et al., 2009). Children with special needs and diverse backgrounds especially benefit from engaging in these multimodal texts where literacy skills are scaffolded and supported through oral, written, and visual processes (McClanahan & Stojke, 2013).

Access and use of mobile phone technologies has increased dramatically, with adolescents leading the way in the consumption and production of digital media literacies (Jenkins, 2006; Rideout, Foehner, & Roberts, 2010). Results from a Pew Internet Research Project indicate that in 2013 almost 75 percent of teenagers between the ages 12 and 17 reported accessing the internet on mobile phones, tablets, and other mobile devices at least occasionally (Madden, Lenhart, Duggan, Cortesi, & Gasser, 2013). Adolescents are developing literacy skills by participating in various social media sites and blogs which are often accessed on mobile phones. Within these spaces adolescents are reading about and responding to relevant social issues and news items (Jenkins, 2006; Richardson, 2006). These cyberspaces also allow teenagers to network, cultivate thriving learning communities, and share their expertise and interests, while mentored by knowledgeable others from around the world (Jenkins, 2006; Richardson, 2008).

There has also been a dramatic increase in the use of mobile phones technologies, which often include applications (i.e., apps) among young

children. For example, results from the Common Sense Media Research Study, *Zero to Eight* (Rideout, 2013), indicates that over 75 percent of families with children between the ages of zero to eight years old have access to mobile phones, smartphones, and tablets. With this expanded access comes greater use. For example 72 percent of children ages eight and under have used a mobile device for some type of media activity and 50 percent of children have used mobile apps, most of which are educational. In fact, educational apps aimed at building young children's literacy skills make up a significant segment of the market (Guernsey, Levine, Chiong, & Severns, 2012). Despite increasing access and usage of mobile phone technologies and corresponding apps among young children, there is less empirical research examining the link between children's mobile phone use and literacy learning.

MOBILE PHONES AND CHILDREN'S LITERACY LEARNING

Research examining the relationship between children's mobile phone use and their literacy learning generally falls into two categories: research examining the ways in which mobile phone use, and texting more specifically, influences children's (Coe & Oakhill, 2011; Kemp & Bushnell, 2011; Plester, Wood, & Bell, 2008; Plester, Wood, & Joshi, 2009; Wood, Jackson, Hart, Plester, & Wilde, 2011; Wood, Kemp, Waldron, & Hart, 2014; Wood et al., 2011b) and adolescent or young adult's literacy skills (De Jonge & Kemp, 2012; Drouin, 2011; Grace, Kemp, Martin, & Parrila, 2013; Wood et al., 2014); and research examining the purposeful use of mobile phones to enhance children's literacy learning (Alismail et al., 2010; Horowitz et al., 2006; Kam, Kumar, Jain, Mathur, & Canny, 2008).

Although research is somewhat limited, there are several leading researchers examining mobile phone use and children's literacy learning. For example, scholars such as Barbara Plester (Plester,

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