Chapter 14

Use of Apps and Devices for Fostering Mobile Learning of Literacy Practices

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ABSTRACT

Given the increased use of apps and mobile devices in the classroom, this chapter reviews research on secondary and college students’ uses of educational apps employed with mobile devices in the classroom supporting mobile learning (m-learning). It focuses on research analyses of m-learning activities fostered through ubiquity/authenticity, portability, and personalization/adaptivity of apps and mobile devices fostering collaboration/interactivity, multimodality, and shared productivity. These practices serve to enhance information search and acquisition, reading digital texts, formulating and sharing responses to texts, shared productivity, and language learning. While there is some research documenting how m-learning serves to foster these literacy practices, there remains a need for further research on how effective design of m-learning activities supports literacy learning, as well as how larger economic and policy issues shape or impede effective m-learning.

SUCCINCT OVERVIEW OF THE RESEARCH

Use of apps on mobile devices employed in educational spaces abound, making mobile learning a rich area for exploration, for example, how digital video apps serve to create videos or curation apps support acquisition of information. However demonstrating the ways that these apps can support learning is complex. To examine the connections between use of apps on mobile devices and learning, we have drawn across existing areas of research we have created a map to organize the complex terrain of mobile learning (m-learning) and its associated considerations (see Figure 1). In creating this map, we thought carefully about how researchers and educators might go about analyzing apps in terms their learning potential and also about ways of learning that are uniquely fostered by the use of apps.

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We recognize there are a variety of ways to examine mobile learning (m-learning). In this chapter, we focus on how m-learning is mediated through activities involving the use of apps and mobile devices to foster certain literacy practices. For the purpose of this chapter, we define m-learning as learning that can occur across different physical or geographical spaces so that students are not limited to learning simply within the classroom (Miller & Doering, 2014). Decoupling the learner from learning primarily in the classroom fosters a shift in focus to learning in a range of different contexts. There is therefore a need for research on how to design activities that serve to mediate and exploit the ubiquitous use of mobile devices to foster literacy practices.

For this chapter, we have limited our review of research on uses of devices and apps to secondary and college students, including middle-schoolers, recognizing that there is considerable attention on use of devices and apps for children (see Ly & Vaala, 2014, as an example of an analysis of use of apps for literacy and language learning by young children and emergent readers through age eight).

**THE INCREASED FOCUS ON MOBILE LEARNING**

One of the major shifts in the use of technology in the past three years has been the increased use of apps as well as tablet and smartphone devices. Mobile devices have certain features--portability, cameras, touch screens, GPS, and other applications that teachers can employ to foster constructivist and connectivist learning (Ito et al., 2013). Eighty percent of U.S. students in grades 9-12 and 65% of U.S. students grades 6-8 have access to a smartphone, while 45% of U.S. students grades 9-12 and 52% of grades 6-8 have access to a tablet (Devaney, 2014). Seventy seven percent of teachers indicate that use of these mobile devices enhances motivation for learning and 76% find that they help to address diverse learning styles (EdTech, 2013). Fifty eight percent of middle school students and 42% of high school students report using tablets regularly in their classrooms while 58% of middle school students and 75% of high school students report using smartphones regularly in the classroom (Pearson, 2014). Ninety percent of students