Chapter 7

Digital Literacy in Special Education: Preparing Students for College and the Workplace

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ABSTRACT

Digital literacy is essential for individuals entering college and the workplace. Students with disabilities experience a greater challenge in acquiring the skills necessary to succeed. This chapter explores the disability digital divide, success factors for acquiring digital skills, and the implications of a digital literacy curriculum developed for special education classrooms in Idaho. It demonstrates how leveraging human performance improvement (HPI) models, incorporating universal design for learning (UDL) principles, and supporting classroom teachers resulted in a curriculum to help young people with disabilities to acquire the digital skills they need to be prepared for college and the workplace.

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INTRODUCTION

Digital literacy is essentially the acquisition of the skills and abilities needed to read, write, and communicate in the 21st century using current and emerging technologies (Buckingham, 2015; Gilster, 1997; Museum and Library Services Act of 2010, 2010; Spencer, 1986; U.S. Department of Labor, 2016). While scholars have studied digital literacy and developed multiple models for how best to acquire these skills for decades, Margaret Spencer (1986) and then Paul Gilster (1997) were the first to define the concept of digital literacy (Buckingham, 2015). Subsequent researchers have expanded upon that early work of defining what it means to be digital literate (Knobel & Lankshear, 2006; Koltay, 2011; Merchant, 2007; Russo, Watkins, & Groundwater-Smith, 2009). Some of these researchers focused mostly on the technical skills needed to be digitally literate because computer use at the time was primarily focused on basic “operational skills” (e.g., mathematical calculations and word processing). Now that computers are ubiquitous, more recent definitions often focus on higher-level cognitive processes such as communication skills and critical thinking skills (Battelle for Kids, 2007; Belshaw, 2012; Educational Testing Service, 2002; Janssen et al., 2013; Neumann, Finger, & Neumann, 2017). An often-cited, more expansive definition by Eshet-Alkalai (2004), claims that “digital literacy involves more than the mere ability to use software or operate a digital device; it includes a large variety of complex cognitive, motor, sociological, and emotional skills, which users need to function effectively in digital environments” (p. 93). However, Belshaw (2012) has argued that Eshet-Alkalai’s conception of digital literacy does not account for how digital literacy changes as digital tools and contexts change over time. Belshaw, instead, conceptualized digital literacy as lying on a continuum with skills broken down into levels, akin to The Levels of Digital Literacy Model created as part of the DigEuLit Project (Martin & Grudziecki, 2006). Low-level skills, sometimes called functional digital literacy skills, are learned quickly with practice and feedback. Higher level-skills are more complex and take time to develop. Belshaw argued that these skills are difficult to develop in a one-time, non-contextualized, instructional experience. In parallel, Eshet-Alkalai (2012) updated the model to include “real-time-thinking”; this update recognizes that people need to be more adept at processing and evaluating large quantities of information due to the pervasive nature of the Internet.

These various definitions illustrate that digital literacy is not a singular entity, but instead a combination of intertwined skill sets, competencies, and attitudes (Bawden, 2008). The literature makes clear that digital literacy is complex and evolving, and, as such, a difficult concept to pin down. Two recurring themes arise in the literature. One theme is that digital literacy changes as technology changes; therefore, it must be continually defined and redefined. The second theme suggests that no definition accurately defines digital literacy for every organization and setting (Belshaw, 2012, p. 44). For this chapter, we conceptualize digital literacy as a necessary but evolving skillset needed for communicating and interacting in the 21st century. Here, we will illustrate how important digital literacy skills are in college and the workplace and why special educators in particular need to focus more on helping special education students acquire these needed skills.

The Role of Digital Literacy in College and Career Readiness

Digital literacy skills are vital to student success in college and the workplace. In fact, in the United States, the Workforce Innovation and Opportunity Act (WIOA) recently highlighted the importance of digital literacy skills in the workplace (U.S. Department of Labor, 2016); WIOA emphasizes that the