Chapter 7

Digital Literacies in the Classroom:
Authentic Opportunities for Student Engagement

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ABSTRACT

In efforts to improve students’ digital literacies on a STEM-focused campus, one university created a digital literacies initiative to support both faculty and students. Faculty development programming supported the development of assignment parameters, detailed assessment rubrics, and scaffolding activities. A campus tutoring center was piloted to support students’ acquisition of digital literacies. This chapter offers examples from three faculty members who participated in the digital literacies initiative and implemented digital literacy assignments in their courses. The researchers offer best practices for campuses interested in developing digital literacy initiatives.

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INTRODUCTION

Improving digital literacies is described as a significant challenge for 21st century colleges and universities by the New Media Consortium in their 2016 Horizon Report. Today’s students grow up engaging with technologies, social media, and other digital environments, but they often lack digital skills seen as important in the contemporary workforce (Oblinger & Oblinger, 2005; Jones & Cross, 2009; Brumberger, 2011). While students may be adept as consumers and users of digital technologies, they continue to need critical digital literacy skills to be persuasive, responsible 21st century technologists (Selber, 2004). Recent research also suggests that students are not receiving the support they need to develop these skills (Parr, 2015).

Students also often struggle with understanding how to apply conceptual information learned in the classroom to “real-world” situations. Providing students with authentic assignments, in which students have opportunities to engage in hands-on, process-based tasks, is an effective way to help students apply conceptual knowledge. Additionally, as students entering the workforce are increasingly expected to have the skills necessary to produce digital deliverables, authentic digital assignments are an effective way to allow students to develop content knowledge while also developing foundational digital literacies.

However, because of the rapidly changing nature of digital technology, the skills, competencies, and practices that students develop in order to become digitally literate are continually evolving. In 2002, The U.S. Educational Testing Service identified “five components [of digital literacy that] represent a continuum of skills and knowledge,” and these skills are scaffolded in order of “increasing cognitive complexity”: accessing information, managing information, integrating information, evaluating information, and creating information (as cited in Martin, 2008, p. 158). Several years later, the ITU Monitor (2006), a longitudinal survey that assesses the use of information and communications technologies for pedagogical purposes, identified three digital competencies for students: “accessing information,” “integrating information,” and creating rhetorically effective digital texts (as cited in Søby, 2008, p. 140). Bawden (2008) identified six central competencies associated with digital literacy: “reading and understanding digital and non-digital formats,” “creating and communicating digital information,” evaluating information, “knowledge assembling,” “information literacy,” and “media literacy” (2008, p. 29). In light of these overlapping yet still distinct descriptions of digital literacy, researchers, like Martin (2008), conceive of digital literacy as multilayered, relying not only on traditional alphabetical literacy, but also technological literacy, information literacy, media literacy, visual literacy, and communication literacy (p. 158-62).

Several benefits stemming from digital literacy indicate the need for instructors to support students in developing these skills. For example, students with underdeveloped digital literacies are at a disadvantage, as “limited knowledge of basic digital literacy skills inhibits success in higher education [and is] essential to meaningful, empowering communication in the 21st century” (Bancroft, 2016, p. 46). Additionally, Barak (2018) observed that digitally literate students were more likely to be flexible and open to change, with students who were digitally literate and preferred to work collaboratively were found to be most flexible (p. 121). The links between student success and digital literacy further demonstrate the benefits of incorporating digital assignments in higher education classrooms.

Instructors observe a need not only to develop their own digital literacies but also to incorporate digital assignments in the classroom. However, many instructors are hesitant to do so for a variety of reasons, including a lack of familiarity with the digital tools needed to complete the assignment, uncertainty about how to evaluate the assignment, or a lack of time in the classroom to instruct students in how to