

Chapter 23

Designing for Purpose–Driven Technology Use Among Preservice English Teachers

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ABSTRACT

This chapter reports on a case study of a 12-week technology course for preservice English language arts teachers in which the teacher educator attempted to shift away from tool-centric approaches by foregrounding purpose-driven tool use and project-based learning experiences. Findings from analyses of classroom, interview, and survey data suggested that specific design choices helped to promote purpose-driven technology use for literacy learning. These included the instructor's articulation and modeling of a "pedagogy first" stance that centered pedagogical reasons for digital tool use and affordances of digital tools, and the organization of a project-based learning environment that engaged preservice teachers in hands-on exploration of digitally mediated ELA learning through continual cycles of making, sharing, and reflecting on digital artifacts.

INTRODUCTION

Research on the use of technology in school has long told a consistent story: integrating digital technologies into classroom instruction is challenging (e.g., Anthony & Clark, 2011; Cuban, Kirkpatrick, & Peck, 2001; Ertmer & Ottenbreit-Leftwich, 2013; Russell, Bebell, O'Dwyer, & O'Connor, 2003). Although 100% of U.S. schools report having networked instructional computers (National Center for Educational Statistics, 2008) and digital tools have long been recognized as potentially powerful learning aids by federal agencies, national professional organizations, and teacher preparation programs (Bakir, 2016), we have yet to witness widespread instructional uses of technology that engage learners in critical thinking, collaboration, complex problem solving, and multimodal communication (Purcell, Heaps, Buchanan, & Friedrich, 2013).

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Indeed, technology use in school often focuses on technical aspects of digital tools rather than on the social and pedagogical contexts of their use (e.g., Bauer & Kenton, 2005; Garcia, Stamatis, & Kelly, 2018; Zhao, Pugh, Sheldon, & Byers, 2002). The persistent chasm between school instruction and the realities of our increasingly digitized and globalized world is particularly problematic, as the large and growing role of new media in all areas of modern life (Castells, 1996) makes the acquisition of digital literacies ever more integral to purposeful, agentive, and critical participation in new social spaces (Ávila & Pandya, 2013; Freedman, Hull, Higgs, & Booten, 2016; Jenkins, Purushotma, Weigel, Clinton, & Robison, 2006). Given the importance of meaningful technology-infused instruction—and its elusive nature in current modes of instruction—it is no wonder that the role of the teacher in ameliorating this challenge has become a prominent point of concern in teacher education (Ottenbreit-Leftwich et al., 2012).

Within the field of English education, interest in technology has been reflective of the educational zeitgeist, with more researchers and teacher educators calling for the redefinition of preservice English language arts (ELA) teacher education in our advanced digital age (e.g., Doering, Beach, & O'Brien, 2007; Eidman-Aadahl & O'Donnell-Allen, 2012; McVee, Bailey, & Shanahan, 2008). Despite widespread access to digital technologies, research shows many ELA teachers using technology in limited ways (Higgs, Miller, & Pearson, 2013; Hutchison & Reinking, 2011; Project Tomorrow, 2017). How the education of preservice ELA teachers might help disrupt these outcomes persists as an urgent conundrum. How can English, a discipline still often characterized by an “unbending adherence to norms ... of writing, modes of reading, dissemination or publication” (Kress, 2011, p. 214), shift alongside the ways today's youth compose, make meaning, and communicate across multiple communication modes and with interactive and networked tools (Jewitt, 2005)? What knowledge and experiences do ELA teachers need to prepare their students for consequential participation in their various social worlds?

Research in digital literacy, specifically as it applies to preservice teachers, continues to expand as scholars attempt to answer these questions (e.g., Boling, 2009; Doering et al., 2007; Miller, 2007), but studies that articulate concrete ways instructors of preservice technology courses can design for purposeful, discipline-specific technology implementation are still uncommon. Taking into consideration the challenges associated with preparing ELA teachers to identify specific learning outcomes and learner goals, and to select and teach with the appropriate digital tools to respond to those goals, this chapter reports on a case study of a 12-week technology course for preservice ELA teachers to address these challenges. During this course, the teacher educator attempted to shift away from tool-centric teaching approaches by promoting purpose-driven technology use through a “pedagogy first” stance and project-based learning (PBL) experiences. The purpose of this study was (a) to examine instructional design decisions that were intended to help preservice ELA teachers think critically about the links between pedagogical objectives and technological affordances—in other words, to develop a purpose-driven lens for deploying technology for instruction (Ertmer & Ottenbreit-Leftwich, 2013), and (b) to examine preservice ELA teachers' responses to the design decisions. The following questions guided the authors' inquiry in this space: How can a teacher educator design learning experiences to foster purpose-driven tool use among preservice English teachers? How do preservice English teachers respond to these learning experiences?

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