Chapter 7

Mobile Learning in Higher Education

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ABSTRACT

This qualitative research study determines if providing technology professional development augmented with consultative support to university faculty increases mobile learning opportunities in higher education. This study used interviews and syllabi from two faculty case study participants who attended technology professional development over the course of a year and also received consultative support. Results indicated the amount of time, rank, and experience teaching in higher education were factors that determined the likelihood of the case study participants to increase the number of mobile learning opportunities for their students. The cross-case comparison suggested the two case study participants share some of the same factors in determining their use of mobile devices for learning in higher education.

INTRODUCTION

University educators often see themselves as experts in the areas of learning and teaching. Particularly, as teacher educators, they are expected to assist teacher candidates develop and integrate knowledge and skills, such as Shulman’s (1986, 1987) pedagogical content knowledge, as well as to attain critical cultural teaching efficacy and practices to meet the needs of diverse learners (Flores, Sheets, & Clark, 2011). In essence, teacher educators recognize that teaching is a complex process that requires attention to the learner, the content, and the context. The role of teachers educators is confounded because not only must they engage in effective teaching practices; they must also model these practices for their teacher candidates.

With the advent of various technologies, there has been a call for the use of technology to support learning and instruction; even more specifically to prepare teachers in the effective use of technology (Mishra & Koehler, 2006; Koehler & Mishra, 2009). Specifically, for teacher educators, such organizations

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as the American Association of Colleges for Teacher Education (AACTE) have specific TPACK standards that call for teachers to be prepared to use technology effectively. Given this expectation, it is pressing that teacher educators become experts in the area of TPACK. According to Mishra and Koehler (2006):

**TPACK is the basis of good teaching with technology and requires an understanding of the representation of concepts using technologies; pedagogical techniques that use technologies in constructive ways to teach content; knowledge of what makes concepts difficult or easy to learn and how technology can help address some of the problems that students face; knowledge of students’ prior knowledge and theories of epistemology; and knowledge of how technologies can be used to build on existing knowledge and to develop new epistemologies or strengthen old ones (p. 1029).**

However, the attainment of TPACK has become a challenge for faculty in general because “newer technologies often disrupt the status quo, requiring teachers [faculty] to reconfigure not just their understanding but all three [pedagogy, content, and technology] components” (Mishra & Koehler, 2006. p. 1030).

With the ubiquitous presence of mobile technology in our daily lives, universities are realizing that many students are equipped with mobile devices. These devices can be used to support learning for the delivery of instruction, including using external apps in classrooms for producing and consuming information. Moreover, mobile technology has been explored as a potential for teaching and learning since the 2004 Horizon Report (Horizon Report, 2004) and the recent 2017 Horizon Report (Horizon Report, 2017) suggested the further improvement of digital literacy is an essential 21st century skill (Partnership for 21st Century Skills).

In the case of faculty who are technology pioneers, the use of mobile tools has become second nature; conversely, mobile technology has the potential to challenge faculty who are not as technologically savvy (Wang, Wu, & Wang, 2009). We would suggest the same is true for faculty who are teacher educators, who have not necessarily used mobile technology within their practices as former teachers or as current teacher educators. Specifically, in this chapter, we explore how teacher educators acquire the knowledge and skills to provide opportunities to use mobile devices as a tool for learning, teaching, and more importantly as a means to demonstrate effective practices in the use of mobile technology to teacher candidates.

**BACKGROUND**

We employ a sociocultural transformative lens in exploring teachers educators participation in professional development for mobile learning. A sociocultural transformative lens is an intersection of Vygotskian (1987) and Freirean (1990) theories in which we see learning occur within a sociocultural context with the assistance of an expert guide that results in the transformation of practices. We used a series of professional development sessions along with consultative support as an overarching structure to encourage faculty transformation of practices.

Koehler, Mishra, Hershey, and Peruski (2004) employed the design team approach as a learning community to engage faculty in professional development for the purpose of developing online learning. The design team included faculty with content expertise and graduate students with technology expertise. Through the various interactions, it was evident that the group considered issues about content, peda-