

## Chapter 15

# Investigation of Blended vs. Fully Web-Based Instruction for Pre-Teacher Candidates in a Large Section Special Education Survey Course

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### ABSTRACT

*This chapter summarizes the results of a quasi-experiment conducted to determine the relative effectiveness of preparing pre-teacher education university students using a fully web-based course conducted asynchronously versus a blended model of instruction using the same LMS for forty percent of instructional time. The project evaluated two large sections of SPED 2100, "Introduction to Students with Special Needs." Data was collected to evaluate the extent to which pre-teacher education students developed understanding of critical information related to human development factors, psychological, sociological, and policy foundations of teaching students with special needs. Further, data collection examined student preferences in learning and the extent to which students developed comparable perception of preparedness for the future teaching roles. Results indicated no significant differences regarding content knowledge, but varying perspectives on the potential for success in fully web-based courses dependent largely on learner profile and the point of development in university coursework.*

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## INTRODUCTION

Increasing external demands on student time, calls for more cost effective programs, and a growing demand for course offerings are just a few factors that have prompted colleges of education to expand and diversify the way they deliver instruction. Online coursework is one method of course delivery that has grown in popularity and provides alternatives to traditional face-to-face instruction (Allen & Seaman, 2011; DEST, 2002). With advancements in the functionality and usability of “distance education” technologies offered via the web, colleges and universities have opportunities for more robust online courses in both synchronous and asynchronous formats (Kim & Bonk, 2006; McGreal & Elliott, 2004;).

Are the learning experiences comparable? To answer this question, ongoing research at the national and university level are critical to assure the credibility of online preparation experiences and the potential for such programs to fully mirror or improve upon existing models (Ludlow, 2006). It appears that attention to quality has resulted in efficient and effective web-based course offerings in various areas of concern. For example, student achievement is critical to any discussion of parity between web-based and face-to-face instruction. Literature on distance education recognizes “no significant difference” in numerous studies that compare student achievement in online courses with achievement in both blended and face-to-face settings (Allen & Seaman, 2011; Beile & Boote, 2002; Caywood & Duckett, 2003; Hartshorne, Heafner, & Petty, 2011; McNamara, Swalm, Stearne, & Covassin, 2008; Scoville & Buskirk, 2007; Steinweg, Davis, & Thomson, 2005). In addition, students’ perceptions of their own learning affect their satisfaction with coursework. There is evidence that students perceive instruction in distance education to be of equal quality to coursework offered in the traditional format (Beattie, Spooner, Jordan, Algozzine, & Spooner, 2002;

Hartshorne, Heafner, & Hartshorne, 2011; Petty, Heafner, & Hartshorne, 2009; Spooner, Jordan, Algozzine, & Spooner, 1999).

Other research has addressed specific components of instruction, particularly course content knowledge. Students enrolled in graduate special education courses reported that they were able to appropriately and satisfactorily acquire course content knowledge when participating in online coursework (Korir Bore, 2008). Steinweg, Davis, and Thomson (2005) also reported that students were as successful in acquiring the course content knowledge via online course offerings as they were in face-to-face class settings. Further, these teachers-in-training connected their learning to future professional behavior, and believed that their knowledge of students with disabilities would have a positive impact on their work with all students in an inclusion classroom (Steinweg et al., 2005).

Not all the evidence is positive for online learning, however. Students in the Korir Bore study (2008) reported that there was something missing in the academic experience, and that they did not experience a true sense of connection with the online course instructor. Current research does not erase the reservations about web-based learning among many teacher educators in special education.

In hybrid or blended learning environments, instructors can incorporate the best of both web-based and face-to-face instruction by reducing lecture time and supplementing instruction with web-based instruction/assessments and/or learning materials. The emergence of hybrid or blended learning environments has further expanded the instructional offerings at universities. Although there is no standard format for offering blended courses, the most consistent interpretation is a 25-50% reduction in face-to-face meeting times by reducing the time of individual class sessions or reducing the number of class meetings (Dziuban, Moskal, & Hartman, 2005). Because of its inher-

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