Chapter 3
Faculty Reflections on Decision–Making and Pedagogical Use of Online Activities in Teacher Education

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ABSTRACT

Teacher educators preparing their students for 21st century schools are increasingly using online technologies in on-campus courses. While some teacher educators have used such activities for almost a decade and have migrated from learning management systems to wikis and blogs, others still struggle to structure and facilitate online activities effectively. Ten teacher educators' decisions to use online activities in 23 face-to-face courses based on several criteria (class size, instructional goals, course type, students' prior knowledge, and the content of classroom instruction) are described in this chapter. Faculty members' reflections on their decisions, practical examples from different courses that they taught, and strategies they refined over time illustrated their focus on pedagogy as they migrated to newer technologies. The structure, design, and implementation of online activities discussed in this chapter could be useful to beginning educators, teacher developers, and instructional designers engaged in the integration of new technologies in higher education.

Teacher educators preparing their students for the schools of tomorrow are constantly faced with the challenge of staying informed about new technologies. They not only experiment with new technologies in order to be able to find tools and strategies that fit their own teaching style and instructional goals, but also attempt to model thoughtful use of technology that will prepare their students to teach with the new technologies that are available in the schools. Notwithstanding time constraints and the rapid changes in technology, teacher educators would like to communicate proven pedagogical strategies to their students, while immersing them in the technology of the time. Text-based online communication is currently used widely by faculty in courses in higher education (e.g. in learning management systems, blogs, wikis, and more recently social networking sites), but many faculty still

struggle with how to put online communication to best use for student learning. Even as they integrate online activities into their on-campus courses, they constantly experiment in order to make informed decisions about best practice.

The focus of this chapter is on faculty planning, guidance, and facilitation using online communication tools for student learning and student interaction in face-to-face courses, which can be transferred to other online technologies that are being introduced in teacher education courses. Online bulletin boards, discussion boards or forums have been used for over a decade to facilitate student interaction in higher education. An increasing number of teacher education faculty routinely use such tools in on-campus courses, and are now attempting to design similar activities with newer technologies like blogs, wikis, and social networking tools. Although most research studies explore the use of new technologies in education before those technologies become part of the mainstream, the purpose of this study is to focus on best practice by studying faculty members who have used both old and new online technologies in multiple courses over a period of time. On the one hand, their reflections on their practice and the changes in their teaching can inform other educators who are not as experienced in using these technologies. On the other hand, best practice from the use of online discussion boards and online collaborative activities can be adapted and transferred to newer technologies.

The chapter presents the experiences of ten teacher education faculty members who experimented with online student activities in different ways to model technology use as well as achieve their instructional goals in 23 courses. It provides practical examples of online activities by teacher educators, but also empirical data in the form of faculty reflections on their use of those technologies and how they made changes in consequent iterations of a course based on experience. A description of faculty use of online activities as well as the identification of the factors that play a role in their decisions to modify or change these activities in each course will benefit practitioners and teacher educators who would like to apply new technologies. Researchers seeking to understand why and how faculty members use online technologies for instruction might also find the results informative. The chapter begins with an overview of the research on teaching with online communication tools and a description of the research methodology, followed by a description of the ways in which faculty used online communication tools for pre-class, post-class, and supplemental instruction. A discussion of faculty considerations when implementing and adapting online activities in each course that they taught, and guidelines for practitioners seeking to integrate online activities are provided at the end of the chapter. The term 'online interactions' in this study refers to asynchronous online interactions between students and the professor or among students while using a discussion board within a learning management system, a wiki, or a blog to supplement classroom instruction.

RESEARCH ON ASYNCHRONOUS ONLINE COMMUNICATION IN HIGHER EDUCATION

Garrison, Anderson and Archer (2000) posited that communities of inquiry, both face-to-face and online, consist of three elements: cognitive presence, social presence, and teaching presence, all three of which, they argue, are "crucial prerequisites for a successful higher education experience" (p. 87). In studying the effective use of online interactions for student learning, they also asserted that a participant's cognitive presence is the most important factor that influences his/her learning. They defined cognitive presence as "… the extent to which the participants in any particular configuration of a community of inquiry are able to construct meaning through sustained communication" (p. 89) and stated that learners

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