Chapter 26
Asynchronous Learning and Faculty Development: Evolving College-Level Online Instruction and Empowered Learning

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ABSTRACT
A phenomenological study of higher education faculty experiences with course content adaptation, methodological changes, and program assessment, this paper summarizes both psychological and work-effort considerations for creating online learning environments. Using journaling, student responses and interviews, the qualitative, two-year study yielded consistent conclusions regarding the need for supported and interactive development for faculty. Online classroom practices are investigated and a number of navigable and intractable problems are summarized. Implications for higher education practices in program design, faculty development and student learning are also described.

INTRODUCTION
If someone had said 5 years ago that I would be teaching online courses, both hybrid (meeting sometimes in person), and fully asynchronous (all interaction electronic), I would have laughed and pulled my protective, quasi-Luddite cloak around me tightly. With more than 30 years teaching experience, I considered the electronic craze, if not just a passing fancy, simply incomparable with effective instruction and professor-to-student interactions in a classroom. It was not evident that the evolution of online education would be just a next step in an ever-broadening set of techniques for effective learning.

Among the factors that caused a change in perspective about online instruction, several are detailed in this report. They include: the physical necessities of delivering a program to a population of graduate students widely dispersed geographically; the need to modernize and bring faculty technology proficiencies up to date; the need and

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capacity to deliver the course in ways that confirm the material is sufficiently learned, but also that result in a productive and rewarding learning relationship with students. Technology has enabled different modes of learning, yet the constraints of electronic exigencies in restricting the modes of communication seemed to be an obstacle to good teaching and learning in an online program.

PROGRAM BACKGROUND AND STUDY RATIONALE

That many faculty are digital “immigrants” rather than digital “natives” (i.e., they have not grown up surrounded by digital technologies) intensifies the challenge to create effective online courses (Prensky, 2001). There are many dynamic factors to be considered in designing technology approaches, combined with the inherent instability of digital technologies, making the learning process a challenging one.

Recent innovations in teaching with technology have highlighted the importance of curriculum-based technology integration (AACTE, 2008; McDonald, Stodel, Farres, Breithaupt, & Gabriel, 2001). Recent studies have extended Shulman’s (1986) conceptualization of the domains of professional knowledge for teaching into the realm of technology integration. Mishra and Kohler (2006) describe unique knowledge teachers need to develop to embed technology in their instructional practice so students learn most effectively. Technological pedagogical content knowledge is the domain of teacher knowledge that encompasses content, pedagogy and technology, and includes: 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 redress 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 (Mishra & Kohler, 2006, p. 16).

Emerging from online instruction are a variety of benefits, including greater opportunity for reflection (Dede, 2004), contributions from learners who tend to be silent in face-to-face settings but find their voice in mediated interaction (Liaw, 2002), and unique opportunities for experiencing multiple visual representations and virtual experiences not practicable in a typical classroom setting (Owen & Liles, 1998). A number of critical determinants for successful online learning have been identified: the necessity for students to be actively engaged in initiating learning (Dringus, 2000); differential engagement styles by gender (Schwarz, 2001); and the ways in which students incorporate prior knowledge (Nachmias & Segev, 2003).

One consistent factor in determining effective online course use is the degree of comparison or match with traditional, on-site campus programs. The demands of a population spread over a large geographic area, increased costs, and increasing pressure to create online opportunities were evident in the current setting, as reported in other institutions (Dede, 2004). The importance of preparation for online teaching and learning is often encouraged, but less often supported through funding or established through research (Torkzadeh & Van Dyke, 2002).

In this study, the development of courses was supported by minimal faculty development funding and technology support workshops. Essentially, individual initiative is the salient factor in determining who will choose to do online coursework. Faculty attitudes and motivation have been established as the major factor in adapting courses to online offering, and best practices for online learning have been documented consistently (Wang, Wilcox, & Wojnar, 2000). However, the motivation for this study was the personal questions of a well-established professor in considering how the electronic medium could be effective. What improvements could be gained in an electronic offering of courses?
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