How Blended Teacher Education Courses Impact Learning in K–12 Settings

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INTRODUCTION

This article examines the impact of blended course design for early career teachers enrolled in a teacher certification program, and the resulting effect of this method on K-12 learners, as perceived by their teachers. The courses in question were designed as part of an alternative teacher certification program within the College of Education at the University of Missouri-St. Louis titled the Transition to Teaching Program (TTP). This program is designed as an accelerated program for those already holding a bachelor's degree, but now working toward teacher certification while holding a temporary authorization certificate. The participants in this program are active teachers, primarily in their first through third year, and being in their early thirties, are older than the typical beginning teacher.

BACKGROUND

This section will describe the hybrid or blended course models currently in use at the University of Missouri - St. Louis, what typically happens as blending occurs in the course, program and institution, and strategies for getting started in blended course design.

Blended Course Design: An Overview

Blended learning typically has two components. First, electronic media and access to online resources are integrated as online learning assignments. Web-based courseware (CMS), live and/or asynchronous web-based discussion boards, and online documents and web resources are considered basic tools at our institution. Second, unique variations of real-time class sessions and asynchronous course activities are planned to assist our students who are primarily employed heads-of-household and parents.

With respect to how "blended courses" are defined, staff at one Midwestern university (University of Wisconsin – Milwaukee) stated the goal for ***blended course design*** as "joining the best features of in-class teaching with the best features of online learning to promote active independent learning and to reduce class seat time." (C. Garnham, personal communication, August 8, 2001).

Why teach blended or fully online courses? That's a question posed by some reluctant faculty at higher education institutions. There are two primary reasons. First, we are experiencing a paradigm shift on our campus, like others, from *teaching-centered* to *learning-centered* instruction. In learning-centered courses, the instructor engages students in a variety of learning activities and expects them to take personal responsibility for learning. The resulting interactive model, where faculty and students interact with one another and the content, can improve the chances that students learn *more deeply and richly* with the help of their fellow students, instructor, practice and review opportunities, and a mix of media applications. Emerging research by Tang & Byrne (2007), Chen & Zimitat (2004), and Natriello (2005) testify to how moving courses away from exclusive face-to-face formats to more online components not only does not impede student learning, but, in fact, could actually increase it.

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Incorporating *any-time, any-where* elements of blended design also provide *increased access, options, and flexibility* for our fully-occupied professional students. Students responding to a survey about CMS web-based courseware use in their courses during Winter Semester 2007 applauded a blended course design:

The major benefit for me with MyGateway [Blackboard] is the ability for professors to offer hybrid courses that combine in-classroom with online. This reduces the need for adult working professionals to have to physically come to campus, which often involves taking time away from work responsibilities (not to mention cutting into PTO or vacation time that has to be taken to do so). I applaud the growing use of this hybrid method in the doctoral program in higher education. The flexibility this provides to us is greatly appreciated. (MyGateway Student Survey, Spring Semester 2007, University of Missouri-St. Louis.)

MODELS OF BLENDING

Blended models are flexible and fit a number of situations: large enrollment and classes with working students at a distance, writing intensive and theory classes, to name a few.

Here are the stages at which blended learning can be implemented. The first two, activity and course level, are the purview of an instructor and his or her students, while at the program and institutional levels, administrators and faculty determine policies and procedures to implement blended course design, broadly. Each of the models is described in more depth.

Blended Learning at the Activity Level

With access to the World Wide Web and to online databases of all sorts, students and instructors will bring expanded reference materials to a course. Current events can be used as examples or cases for problem-based learning. Self-paced review materials and quizzes for practice can readily be made available; live classrooms via computers and asynchronous, anytime-anywhere discussions can link students around the world. One of our TTP courses combined interactive video and online sections in our course management system so that students in Missouri interacted with students located in Albania, Macedonia, Slovakia and Thailand.

The capability of hearing from all students in continuing online discussions, rather than the most vocal in a face-to-face class, is a true benefit. Shared reflections activate higher order critical thinking and small group activities can progress without the necessity to meet physically (Rovai, Pontor, & Baker, 2008). Resource people can deliver video-streamed "lectures" or moderate discussion forums. They can share research and their professional expertise, again, in asynchronous or real-time modes.

Finally, many instructors like to make themselves available for online office hours, since students no longer come readily to a place-based office hours. There are many discipline-specific examples described in current professional journals that will help jump-start faculty with proven strategies and steer clear of 're-inventing the wheel.'

Course Level Models

Several models are defined at the course level. Many distance courses use the **Anchor Blend**, offering a face-to-face class meeting for orientation and introductions which then moves to mediated or technology-assisted instruction. **Bookend Blends** may start and end with face-to-face meetings, typically for student presentations near the end, or with online assessments taking place at the beginning and end of a course and face-to-face class sessions, in between.

Intensive and short-term course schedules may include day-long, face-to-face classes (once a month) and online learning activities, as is the model for our intense "intersession" program. **Half and Half** models combine 8-9 class meetings with the remaining assignments completed online. Another model, **Mixed Technology,** utilizes a variety of technologies.

Program – Institutional Level Model

At the program and institutional levels, blending can translate into how academic programs are run (including decisions about scheduling for teleconferences, face-to-face seminars or classes, and development of online instructional modules). Centralization of support for faculty and students is usually one of the positive outcomes of discussing blended course development at these levels.

Two procedures which are typically determined at the program level is identification of major course

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