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# An Evaluation of Blending Technology with Pedagogy for Teaching Educators and its Implication for their Classroom Teaching

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#### **ABSTRACT**

Although research has been conducted on the benefits and drawbacks of online courses, more is specifically needed in teacher-education to increase understanding of the transfer process from technology integration learning to the classroom. This study was designed to evaluate a model for blending technology with traditional classroom methods in preparing teachers to do the same. A combination of qualitative and quantitative methods was used to examine the collaborative and scaffolding approaches to the teacher-learners construction of meaning in the online discourse. Data has been collected from blended graduate-level courses taught in the area of educational technology for in-service and pre-service teachers from 2001 through 2006. These findings will be used to help identify best-practices for technology integration with teacher-education through informed applied research, and to create a new model for more comprehensive future blended course design. [Article copies are available for purchase from InfoSci-on-Demand.com]

Keywords: Blended Courses; Distance Education; Online Teaching; Teacher Education; Technology Integration; Web-Based Instruction

#### INTRODUCTION

This study is intended to inform the construct for teacher-learners' transfer of technology first to their teaching dogma, secondly to their pedagogical praxis and ultimately for the students' learning environment. What evidence does the situated praxis of online discussions in the teaching of teachers offer to further the research of meaningful technology transfer into their classrooms?

The data accumulated from blended course online discussions with in-service and preservice teachers was examined on the basis of the topics of threaded discourses, content of responses, identification of originator of a thread, and occurrences of collaboration in forming meaning. This in-depth evaluation of the online interactions and subject of discussions will contribute to creation of a model for teacher-learners as participant practitioners in online learning.

#### LITERATURE REVIEW

Rourke, Anderson, Garrison and Archer (2001) have focused on one specific element, "Social Presence," of the Community of Inquiry Model, (Garrison, Anderson & Archer, 2000) and created a template for assessing how students actually project themselves socially into an online conferencing environment such as an online class. In the model three components are identified: the cognitive presence of students, the teaching presence of the instructor and the social presence of the students. The authors tested the template, utilizing content analysis of transcripts to assess students' social presence density in a conferencing environment. Their study indicates that this is a good way to provide quantitative description of the effectiveness of an online environment, and to examine the suggested relationship interactions and changes that are affected by the instructor's, the students' and cognitive presence.

Angers and Machtmes' (2005) qualitative study identifies the "adoption and use of technology in the classroom is determined by teachers' attitudes and beliefs." (Angers, 2005, p.780). Their findings regarding that "Teachers beliefs about classroom practice appear to shape their goals for technology, "(Angers, p.789). This evaluation examines how these intrinsic beliefs are expressed, changed over time and influenced by participating in online classes, thereby guiding the teacher-learners to become expert-practitioners. How can an instructor design a teacher's learning experience to achieve these results?

Stephenson's (2002) work includes a collection of articles with numerous authors focusing on how to transition from theory to practice, create effective online learning environments using theoretical frameworks and evidence-based research and pedagogy to assist learners in maximizing the creation of knowledge from online learning. Each of these articles talked about a transformative shift in the pedagogical paradigm from the instructor-managed classroom construct to a learner-centric online pedagogy. Several features of learning online that are identified as important for both instructors and learners include the following: access to resources, heuristics, attention to different learning styles and needs, access to experts, both online and offline, tracking and recording of dialogue, transactions among students, teachers, student-student, a variety of types of engagement, including synchronous and asynchronous, feedback, good design of the web environment, easy links to multimedia, universal design, opportunities for telementoring and interaction with experts both within and outside of the institution, an the opportunity to work in collaboration with peers and groups online and globally. Each of these features is also expected to be flexible and learner-controlled. Also important, as Stevenson's (2002) work indicates, students must be informed of the difference in the online environment as offering more than a lecture delivered online, as well as encouraged to use the interactivity, and to take responsibility for their own learning and participation in order for the paradigm to shift from classroom teacher to a multi-media learner centric environment.

While Kozleski (2004) emphasizes the economic contribution of technology as being imbedded in education, she identifies changes to teachers' dogma and pedagogy as critical for the transference of technology in education. A central effort of this study was to identify discrete teacher learning which would underscore, "rather than harnessing the curriculum, understanding education as a technology trans-

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