Dynamic Task-Oriented Online Discussion for Student Learning:  
A Practical Model

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ABSTRACT

A dynamic, task-oriented online discussion model for deep learning in distance education is described and illustrated in this article. Information, methods, and cognition, three general learning processes, provide the foundation on which the model is based. Three types of online discussion are prescribed; flexible peer, structured topic, and collaborative task discussion. The discussion types are paired with tasks encouraging students to build on their adoptive learning, promoting adaptive learning and challenging their cognitive abilities, resulting in deep learning. The online discussion model was applied during two semesters of an online multimedia design for instruction graduate-level course. The strategies for creating dynamic discussion serve to facilitate online interactions among diverse learners and assist in the design of assignments for effective interactions. The model proposed and the strategies for dynamic task-oriented discussion provide an online learning environment in which students learn beyond the course goal.

Keywords: asynchronous discussion; computer mediated communication; synchronous discussion; technology mediated learning; Web course development

INTRODUCTION

The purpose of this study was to apply the theoretical model in an actual online discussion context. Deep learning and understanding, exhibited through higher-order problem solving and inquiry, serve as the educational goal for this model.

The theoretical underpinnings of the model may be applied to many diverse educational environments. This article offers distance learning educators strategies within the proposed model that will enhance online courses. The model reveals an approach to distance learning that fosters and encourages deep learning for higher-or-
nder thinking. Application of this model in distance learning may be applied to a variety of online courses to enhance student learning.

THEORETICAL FRAMEWORK

Several researchers have contributed to the effort of understanding the learning process. Their conclusions can help in the process of developing models for analyzing the distance learning process. Henri (1992) developed an analytical model that can be used by educators for a better understanding of the learning process. This model was developed to emphasize five dimensions of the learning process exteriorized in the message: participation, interaction, social, cognitive, and metacognitive dimensions. Henri’s model provides information on the participants as learners and on their ways of dealing with a given topic. Oliver and Mcloughlin (1996) suggested some changes to Henri’s analytical model. They recognized five kinds of interactions: social, procedural, expository, explanatory, and cognitive. Oliver and Mcloughlin’s model has been used for analyzing the different kinds of communication in distance learning and in traditional teaching.

The model of deep learning for distance education (Figure 1) is established through the categorization of the five kinds of interactions proposed by Oliver and Mcloughlin (1996) — social, procedural, expository, explanatory and cognitive — into three general processes: information, methods, and cognition (Du & Havard, 2003). The first stage of integrating these learning processes is the acquisition of knowledge, representing a surface level of understanding. Skill development, the second stage of the model, is often accomplished through drill and practice. Students operating at these two levels develop a ‘know-how’ of the material, but on a very limited basis. The third stage represents cognition, where inquiry and strategy application assist students in learning to solve problems. A deeper understanding of the material fosters creative use of the subject content. Without deep learning, students will simply imitate the instructor, rather than apply their learning to new problems.

New and innovative types of assignments that require students to apply their recently acquired skills and knowledge encourage higher-order thinking. To transfer the surface learning into deep learning, the effect of imagination cannot be neglected. Greene (1995) emphasizes that imagination can help people create new orders, bring pieces together, and assemble or reassemble patterns. The foundation of deep learning relies on assignments that encourage inquiry and creativity. Without reasoning, the learning cannot be deep. Thayer-Bacon (2000) stresses that “reason is an invaluable tool to help us construct quilts of knowledge” (p. 148). Reason can aid us in filtering useful and useless information, organizing it into meaningful entities, retrieving previous knowledge, and ultimately gaining new or deeper understanding.

Problem-based learning provides the rich context in which higher-order thinking is essential for problem resolution. Students working through a difficult ill-struc-
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