Cutting the Distance in Distance Learning: Perspectives on Effective Online Learning Environments

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Abstract: This qualitative research study informs the development and implementation of effective online learning environments by examining course content, sequencing, methods, and sociological approaches, as identified by students and instructors, which contributed to positive online learning experiences. Researchers interviewed 6 online course instructors and 9 adult students about their experiences in undergraduate and graduate level online degree programs. Using a Cognitive Apprenticeship Model to inform data analysis, findings revealed how various components of one online program provided students with an effective online learning experience. The study has implications for individuals who develop and/or teach online courses.

Introduction

Recently there has been an explosive growth in online distance learning that is "rapidly transforming post-secondary education" (Moller, Foshay, & Huett, 2008, p. 66). One of the greatest challenges for learning institutions and instructors when designing and implementing online courses is to "provide a sense of community with constructive feedback and provide open forthcoming communications as well as recognizing membership and feelings of friendship, cohesion, and satisfaction among learners" (Desai, Hart & Richards, 2009, p. 333). How to create the most effective, highly interactive, online social learning communities, however, is still a relatively new area of study. The purpose of this study was to explore, from both teacher and student perspectives, what constitutes effective online learning experiences.

Theoretical Framework

To explore the various components that make up an effective online learning community, the researchers turned to the Cognitive Apprenticeship Model (CAM). The CAM is grounded in the belief that when students are learning in an academic environment, they do not usually have access "to the cognitive problem solving processes of instructors as a basis for learning through observation and mimicry" (Collins, 2006, p. 48). Because of this, before apprenticeship methods can be applied by students to learn cognitive skills, the learning environment "has to be changed to make these internal thought processes externally visible" (p. 48). The CAM is designed so that these cognitive processes can be brought into the open where individuals can "observe, enact, and practice them" (p. 48). According to the model, there are four dimensions that constitute any learning environment: content, method, sequencing, and sociology.

Methodology

Researchers interviewed 9 adult students who had completed online degree or certificate programs in different fields of study (e.g., education, nursing, business) and 6 course instructors who had experience teaching online courses. Prior to participating in a one, 60-minute interview, participants shared relevant course materials with the researchers, including such artifacts as course syllabi and assignment descriptions. Both deductive and inductive analyses were conducted using constant comparative methods (Glaser & Strauss, 1965). Researchers coded interview transcripts using the Cognitive Apprenticeship's "content," "method," "sequencing" and "sociology" categories for deductive coding. They also noted other recurring themes, reached consensus on new coding categories, and revisited the data multiple times to code for new categories.

Findings

Findings revealed that in most of the online courses and programs, there was an emphasis on text-based content, individual learning, and limited interaction among students. Most students reported feeling disconnected with their instructors, course content, and fellow classmates in these programs which favored individual, text-based activities over more collaborative, multimodal ones. One program in higher education, however, was an exception to this model and is the focus of this paper.

The *Content* for the program in higher education emphasized the knowledge and skills that are needed to guide and lead complex, dynamic institutions. This Masters program allowed students to specialize in areas such as student affairs and community college leadership. Using a backward design model based on desired learning outcomes, program creators turned to professionals in the field to assist in determining the subject matter and skill sets that students needed to be prepared for real-life work situations. Course content was based not only on domain knowledge but also on "heuristic" tasks which "mimic" real-life work responsibilities, enabling students to gain feedback from professionals in the field. Dr. Karrie Bates, designer of the program and course instructor, explained how one activity in a statistics course included obtaining instruction from a professor, creating a spreadsheet, and then performing a "real-world" task using ANOVA. Students performed this task in Wimba, a live virtual classroom, and an outside expert was present, along with the instructor, to provide students with additional advice and instruction. In this way, students were "apprenticed" via the course content and design, ensuring they could apply such knowledge in real-world situations. Courses followed a structure where instructors provided training, engaged students in learning simulations, and then emphasized career placement, advancement, or transition.

The *sequencing* of the program consisted of a total of 45 credits culminating with a final co-op experience. Courses ran for 10 weeks in the fall, winter, spring and summer, meeting on a Wednesday to Wednesday schedule so that students could maximize the weekend after receiving instruction. Because courses for the program were created through backward design, they were sequenced so that the content and skills developed in each course built upon one other. In order to support students who had been out of school for an extensive amount of time, the program offered online class sessions that taught students where to go and whom to contact for ongoing support and assistance. This included introducing them, by their second week in the program, to university librarians, technology support staff, and individuals who worked in the university's career development center.

Findings related to *method* and *sociology* were interconnected and difficult to separate. Dr. Bates explained that one of her goals for the program was to find ways to "bring the campus to the students" and to give the online experience "a more human feel," something that she felt was lacking in many online programs. To accomplish this, students entered the program as a cohort, participated in online social events, and engaged in online simulations and a co-op experience, allowing them to interact with others and engage in authentic learning experiences. One student, Edna, explained how these activities allowed her to interact with many people in higher education, allowing her to learn more about the field. She and another student confirmed how technological tools such as Wimba fostered and mediated social, online experiences. They described how instructors added a more "human touch" to the program by recording voice comments on their papers, creating assignments that fostered interaction with other professionals in higher education, and using audio-recorded weekly wrap-ups to highlight "key learning points." By using tools like Wimba, instructors were able to create social learning environments that allowed them to model and scaffold student learning while also allowing students to demonstrate and articulate what they learned.

Conclusion

This study illustrates how the Cognitive Apprentice Model provides a useful lens to understand, evaluate, and develop interactive, online learning communities. It challenges instructors and curriculum designers to consider the authentic needs of their students and communities while designing programs. The study highlights how technology can be used to support social learning, moving beyond text-based to more multimodal ways of knowing. It also shows how class assignments can mirror real-world application while scaffolding student learning. Additional research, however, needs to explore how technology can most effectively be used to enhance online teaching and learning. Researchers might also want to investigate how universities can better support faculty in acquiring the knowledge, skills, and dispositions that are needed for building effective online learning communities. Finally, it is essential that researchers come to understand why some educators are choosing to use technologies that promote student interaction, social engagement, and multimodal ways of knowing while others are not.

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