The Instructional, Technical, and Psychological Perspectives of Faculty Building Online Courses in Cohort Settings

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Introduction

The migration of a traditional course to a web-based environment requires a rethinking of the instructional design, grading methods, group-work designs, technology skill level, and the community building that often occurs in a traditional classroom. Faculty members often lack the technical skills necessary to redesign the course materials for the web environment to meet the high standards they desire and may not understand the pedagogical changes that must occur in the web based environment. This leads to frustration with online delivery and a negative feeling that the course will never "work as it did in the traditional classroom". In reality, this attitude is fact—the course will never work as it did in the traditional classroom—and must be changed to achieve the desired outcomes in this new visually based web environment. However, since course development for higher education faculty typically occurs in isolation, faculty can become frustrated with the development of new materials for the web, especially when they lack an understanding of how to work in this online medium.

The College of Education and College of Music has developed a group of online courses in support of their mission to provide ongoing opportunities to graduate students with a desire to obtain certification or renewed certification for teaching and administration as well as undergraduates often closed out of "high demand" courses. In an effort to meet a rising demand by undergraduates, area teachers, graduate students, superintendents, and international students for more flexible educational services, these colleges have developed online courses for the following students:

1. Graduate students in Computer Education and Technology who must obtain certification to become K-12 Technology Coordinators,

2. Graduate students in Music Education who must obtain certification to become K-12 Music Teachers,

3. K-12 teachers who now must obtain a masters degree in their field to maintain teaching certification, and

4. Undergraduate students who need required courses for student teaching that are typically in "high demand" each quarter, and

In faculty discussions with the Center for Innovation in Technology for Learning (CITL), as the courses were being developed, concerns were voiced with developing the courses to meet the same standards as experienced in the traditional classroom. Concerns over graduate student technology skills included such questions as: how could technical problems be addressed especially for the "novice technology user " by the faculty and the online student? Another major concern was how the lack of face-to-face contact with students would impact the faculty member as an instructor and on teaching evaluations. Questions were raised about the possibility of working with a team of faculty during the development of individual online courses. These questions lead to the development of a cohort of faculty who worked together to develop their individual online courses.

The Study

The members of the cohort group were College of Music and College of Education faculty presently developing online instruction using *Blackboard CourseInfo 3.11*. Personal interviews with faculty and a descriptive approach in which written information was used to substantiate the question to be answered was used during data collection. Attention was given to the details of the online course development process and changes as the faculty designed their courses.

The cohorts met to establish the group, to identify technological needs and to discuss planned instructional methods for their courses. The cohorts had opportunities to view other online courses in which *Blackboard CourseInfo* 3.11 had been used and how the various materials were presented. Often the development of online course materials takes a different format than originally planned when faculty see various methods of presenting an idea in the online environment. Cohort members discussed how small groups and

discussions would occur within their course structures. The College of Music faculty had very different instructional problems than the College of Education in that the College of Music needed to be able to place sound files within the *Blackboard CourseInfo 3.11* for their students to evaluate. This posed a unique problem to the music faculty because most were novice users of this application of the technology. Help from the faculty in the College of Communications and WOUB Public Television was enlisted to help the faculty envision the possibilities of presenting the music scores online and to help develop the technical skills needed to accomplish the task. Most of the discussion by the cohort focused on course development, problem solving, technical problems, technological skills and course changes to be made as the course progresses. Discussion by the members of the cohort was recorded. An instructional technology graduate student and the researcher provided technical support to the members of the cohort. Members were asked to reflect upon the process of developing the course and the instructional and psychological hurdles that were encountered in the process. The graduate student and the researcher also maintained a journal of discussion with members, the meetings, and their reflections of the process as observe participants.

A group of faculty who had worked alone in the development of their online courses was randomly selected from a list provided to the researcher from the CITL. Selected faculty from this group were interviewed using the same interview questions as the cohort group but with an emphasis on the individual course development process. Discussion and answers concerning the interview questions were recorded for examination.

All journals, self-assessments, meeting notes, and recordings from the cohort as well as discussions and comments from non-cohort faculty were examined to determine common themes and differences between the two groups in their instructional, technological, and psychological approaches to the development of online courses (Bogdan, R. & Biklen, S., 1998).

Findings

Multimedia and telecommunications technologies continue to evolve and advance with the promises of offering the learner with a richer and more meaningful education relevant for the future workplace and learning. The incredible growth had created challenges for educator to expand educational opportunities beyond University campuses to provide on-demand, anytime, anywhere instruction. However, faculty members often lack the skills necessary to create online courses because technology use was not part of their pre-service education (Cyrs, T. 1997). This study compared the use of a cohort model and the typical individual online course development by faculty with reference to technology, instructional and psychological support.

Solving Technical Problems

Technological problems related to the hardware and software used in online learning environments. These included problems related to bandwidth, speed of communication lines, software applications, and cost. The most prominent technological challenge identified by the study was the frustration associated with lack of knowledge in using the software (*Blackboard CourseInfo 3.11*) by individual faculty working alone. Individual faculty members working alone on course development adopted different approaches to developing their online courses:

Locate an Expert. The individual faculty members with limited skills and knowledge of developing online course used a paid expert in course development. The expert was typically a former student of the program who was very familiar with the course content. Typically they had no face-to-face interaction and all discussions were conducted via e-mail and the telephone. Using such an approach helped the faculty member to avoid having to be confronted with technology issues associated with the use of the software. The faculty member used the expert as a sounding board for technical problems.

Locate a Helper. Friends with technical knowledge were also identified as sources of help to some individual faculty members building online courses. One faculty member working alone stated, "I posted all the contents and inserted the images and then I gave it to my friend. He kind of made it look nicer by using *Photoshop* and inserted some graphics". The faculty member spent some time with the helper, three to four hours, to learn how to use the *Blackboard CourseInfo* software. The rest was e-mail back and forth, and it was effective. Several faculty stated, "Having a helper gave me the encouragement I needed to do more".

Locate a Mentor. Some faculty members identified mentoring as being an effective and efficient approach to online course development. Comments often included statements as; "it is faster if someone helped you than trying to figure it out yourself". The drawback to this approach was the limited number of meetings schedule to work together. Often the mentor and faculty member did not feel obligated to meet due to the independent nature of the course development.

Build a Team with Skills. In another approach a team of faculty members with expertise in different subject areas agreed to develop an online course together. Each member of the team was identified as having

specific skills to give to the course. The member with skills and knowledge in technology applications was responsible for any technical setbacks that they encountered in the course development. This approach to "figuring things out" depended on one individual. The longer it took to figure it out, the longer the team had to wait.

Locate Support. Individual faculty members also identified several sources of support, one being the online manual for *Blackboard*. When confronted with a technical problem the faculty member referred to the online manual or used the "Help" menu. "I would go to the manual to try and figure it out and if I couldn't then I would call the mentor", stated an interviewee. Faculty learned to rely on their own ability to problem solve with the help of manuals. Several indicated they had not used online HELP functions in the past but were experts after developing the online course. The CITL was also named as a source of technical support by individual faculty. Periodically, the center organized workshops for faculty members.

The study indicated that in all the above-mentioned approaches there was also very limited interaction and the main channel of communication was through the e-mail. This left many feeling frustrated with the technical problems and slow rate of online course development. Frustrations were sometime due to messages that were not clear and instructions that are difficult to follow.

According to Forsyth (1990), a group is defined as two or more interdependent individuals who influence each other through social interactions. Communication within the cohort was mostly verbal, at any place and anytime. Individual's technical problems were discussed in offices, hallways, and meetings and at every possible opportunity. Proximity among individuals favored frequent interaction and communication. Individuals' had their offices in the same building and often next to each other. There were frequent face-to-face interactions that promoted positive interdependence.

Individuals felt supported technically and inspired to develop their online courses. One cohort member admitted his lack of desire to use the technology was altered when he began working with the cohort. He stated, "First it [cohort] has exposed me to the reality of using technology which I have been shying away from. Because I don't understand the language. But this challenge is helping me to face reality and I like that. I am excited working with a cohort". Several faculty in the cohort echoed the statement of this cohort member, "I saw how excited she [a cohort faculty member] was about the online course development and how well her course was going and I thought, I want to do this too. And I can with her help!"

Cohort members found that each had technical strengths that they could call upon when the technological tasks seemed overwhelming.

Battling with Instructional design

The impact of online learning on the learner was of major concern to all faculty members. Both the individual faculty members working alone on their online course development and the cohort faculty members voiced concerns about developing strategies that would empower the learner, encourage cooperative and independent learning as well as active learning in the online environment. A complaint often voiced by learners in the online learning environment is that they feel isolated and unconnected to other members in the class or to coursework.

How to design online instruction to meet the standards, how to stimulate critical thinking, questioning, and discussions, how to ensure effective group work, case study development, inquiry projects, and lectures were the same concerns voiced for the online instructional design as with the traditional instructional design. One individual faculty stated, "All of these things added together make an interesting course and only some of those things are available to you on the online format." In questioning the individual faculty, the medium seemed to drive the methodology thus challenging individual faculty member's ability to create online courses with desired instructional goals. In certain disciplines e.g. educational administration, faculty members were confronted with the problem of how to vary the instructional format. "The design was a real challenge and having to re-think teaching strategy was a real challenge". The designing of the online courses seemed most difficult to the novice faculty member and the amount of time spent in the design and redesign was often at the expense of other duties.

Deciding on the content, materials to include, how much information to provide was a constant question in the instructional design process. An individual faculty member stated, "Working in an environment that is filled with multiple media can lead to feeling of being overwhelmed. In developing the course, it was hard to figure out how much information I needed to put in the course. It took a lot of time and effort, many months of work." Many indicated that the course must be complete when implemented or the results can be disastrous. Faculty indicated that the changes made after the course is implemented take enough time without working on building the course as you teach.

The study also indicated that some individual faculty members were concerned with students' reaction to the information provided and choices for students. Several suggested, "There were hundred and hundreds of links. Information to reinforce content, there were quizzes and group projects." Bringing in a sense of humor and the personality of the instructor online was another concern of all faculty. "In a classroom you can use sense of

humor, but in this format, I created some pop-up boxes to bring some other kind of things into the course. It was a little frustrating at times and it took longer hours to get things done".

Members of the cohort group were supportive of each other as a result of interaction and collaboration throughout the development of their online courses. The cohort members indicated that by working together they had an opportunity to become better acquainted with the courses that the other cohort members taught. They were able to better understand the connections between the courses in the curriculum and offer suggestions for connecting the courses through the instructional design process. One cohort member stated, "We saw that the audio/listening pieces could actually be worked on over a spring and summer rather than in just one course. This made the content of both courses richer for the student."

The cohort allowed their creative potentials to be combined for a common purpose. "We had a meeting and we talked about what each other is doing, how it has to be done and how to help each other". "If someone in the cohort was more technologically skilled, that person would help everyone learn how to use the technology and we would in turn help them with developing their content so they were not overwhelmed by doing it all". This allowed individuals to reveal themselves to one another and to receive feedbacks from the group. This process also helped individuals to develop new skills.

Psychological Concerns and Support

The study indicated that individual faculty members were worried about knowledge and skills in using the software (*Blackboard CourseInfo 3.11*). One faculty member said, " The first time I taught online I got 80 emails from the students the first day, which for some reason I hadn't anticipated. I thought, how could I ever do this many emails day to day? When I told a group of my colleagues about all the emails, they said, well you shouldn't have built the online course. I felt rejected by my peers. Here I wanted to be innovative and teach in a different medium and my colleagues didn't support it. I thought, I will never do this again".

The study also indicated that individual members realized that developing online courses was extremely labor intensive and so having about two people or three on a team, would enable the sharing of work, sharing of ideas and perceptions of what's going on and shape the activities for better learning. One individual faculty member who had found a helper said, "Availability of immediate help/support is essential for individuals working alone, as it releases stress".

Other concerns included how to ensure that the assignments were reasonable and the trouble of having to make this decision alone when there was not a clear understanding of the online environment. One member of the cohort concluded, "Working with a team guarantees moral support and this is too much work for one person to do".

The cohort members had the opportunity to interact and become interdependent emotionally as they worked toward a common success. The cohesiveness within the cohort promoted a sense of trust. Surrounded by a network of support and mutual understanding, members in the cohort had higher self-esteem and experienced lower levels of anxiety. Individuals within the cohort felt free to explore their own potentialities, risk self-revelation and try novice ideas because they felt surrounded by a supportive environment. The cohesive nature of the cohort afforded the opportunity to share thoughts and emotions. Consequently an emotional safety environment was created.

An empirical research on cohorts in university setting conducted by Hill (1992) and Kasten (1992) indicated that students in a cohort reported receiving psychological support from group members, feeling of reduced sense of loneliness, and developing strong affiliations. The study revealed that interaction made them feel connected and not isolated. The also felt emotionally secured. "She was by my side when I am doing all these".

Several cohort members echoed this research sentiment, "I know that they [other cohort members] will be there if I have problems so it makes this easier and I am sure that I will be successful and our program will be successful."

Conclusions

To change the world, faculty need reasons to take risks, to incur resistance, hazard failure, and to grasp the opportunities for action that their vision avails them. It is hoped that this research will provide information concerning the processes occurring when faculty develop online courses with respect to the technical, instructional, and psychological changes associated with online course development. While much research has been conducted concerning the learning that occurs online, the differences and similarities of the learning that occurs, little information is available concerning the changes that faculty undergo as they move from the traditional classroom to the online classroom.

With the use of a cohort formed by faculty, the isolation and frustration often felt in the development of online courses can be lessoned. The faculty members of the cohort group within a college or program typically

have similar experiences in classroom instruction and similar interactions with the students that they will teach. The researcher's own experience and antidotes obtained from faculty who have developed their courses without support indicate that the isolation of developing and teaching online can be deterrent to continued online teaching. Also peer pressure by fellow faculty members does not always support the development of online courses, which leads to further isolation. Members of cohorts often remark that the cohort provides them with needed emotional support during periods of stress. The collegiality of the group supports the successes of each person within the cohort and lays a foundation for intellectual stimulation.

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