On-line Teaching: Suggestions for Instructors

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The purpose of this study was to examine the problems that learners faced while dealing with instructor-related issues when taking on-line courses. In this study, fifteen graduate students enrolled in 5 on-line graduate courses using course management software. The findings showed that lack of feedback from the instructors, their unfamiliarity with the teaching tools, and poor organization of course materials were the three major problems hindering learners' on-line learning experiences.

Keywords: Courseware, Teacher training, On-line teaching

Introduction

The rapid development of Internet technology has made a significant impact on how instruction is delivered in higher education (HE). In U.S., most colleges and universities are eager to offer some form of Web-based instruction in order to utilize the advantages of this technology. Accordingly, faculty members are expected to create teaching materials in an on-line format and demonstrate satisfactory teaching skills in that learning environment. Thus, it is essential for on-line instructors to develop appropriate Internet skills in order to understand the relationships between users, technologies, practices, and tools (Koehler & Mishra, 2005).

When online instruction does not produce acceptable results, researchers have found that inadequate training of the instructors is one of the main factors contributing to that failure. (Fly, 1998, Galusha; 1998). Kerr's research (2005) also indicated that the confidence and preparedness of teachers and the motivation of students are the most influential elements affecting on-line learning outcomes. Instructors, therefore, need to engage with this new format of teaching to a greater extent in order to enable students to become comfortable and effective in the on-line learning environment. Lee and Busch (2005) suggested that training workshops are strongly needed to help instructors develop the skills of the online environment, to employ the technologies, design courses and teaching strategies, and to more fully comprehend the merits of on-line instruction.

In essence, learning involves two types of interactions – interaction with learning content and interaction with other people (Berge, 1995). On-line instructors, especially, need to pay attention to these features, that is, designing content with appropriate interactivity and promoting communication and collaboration among learners. Miller (2001) asserted that students have not embraced this new medium of instruction to the extent that it was originally hoped because instructors have not been not fully aware of the importance of these two issues when designing on-line courses. This has affected success with the method and the drop-out rate is higher than that of traditional classrooms (Kim, 2004). Although related studies have pointed out that on-line learners' self-regulated learning skills play an important role in determining the effectiveness of on-line instruction, the most vital element is the instructors' involvement in conducting interactions (McMahon & Oliver, 2001; Kim, 2004; Ellis & Calvo, 2006). Kim (2004) stated that lack of motivation was the key reason for student drop-out in on-line courses. He described that three types of motivation (i.e., motivation to start, motivation to persist, and motivation to continue) maintain the learners' self-regulated learning pace throughout the process. Instructors, therefore, need to provide an environment rich in various opportunities for human-to-computer and human-to-human interaction. An understanding of how learners perceive on-line courses and how different instructor-related factors influence their motivations and perceptions would provide valuable input to instructors. This paper, in particular, reports the findings of students' perceptions toward on-line instructors' teaching skills.

Technology expenditure and teacher training

According to a statistical analysis conducted by Market Data Retrieval (MDR), U.S. universities and colleges are expected to spend 6.94 billion dollars on technology during 2006. Approximately 96% of the funds will be spent on hardware and software. Training in the use of technology accounts for a mere 4% (MDR, 2006). This data may explain why on-line instruction currently does not make a significant difference in learners' academic performances. Undoubtedly, technology does offer more opportunities and resources to learners. It makes learning anywhere and anytime possible. However, a successful on-line course primarily relies on the originator – the instructor. Thus, training teachers to utilize online technology skilfully would demonstrate positive effects.

There are plenty of new technologies and software developed for educational use. How to choose the right one, on the other hand, is a concern for teachers. No matter what technology the instructors are using, the content and instructional pedagogy should be the major concern. Westin and Barker (2001) stated that "all instructional materials contain philosophical assumptions about how students learn, and these assumptions are implemented in an instructional design" (p. 15). This statement also applies to on-line instruction.

Interaction in on-line instruction

Interaction is the essence of effective learning. Wagner (1994) wrote that "Interaction is an interplay and exchange in which individuals and groups influence each other" (p. 20). In the traditional classroom setting, the two major forms of human interaction are student-to-student and student-to-instructor. On-line distance education also has the capability of supporting these two types of interaction, especially courses designed with course management software (CMS). In fact, the structure of CMS tends to mimic "a traditional face-to-face course structure that is familiar to faculty" (Harvey & Lee, 2001, p. 38). Berge (1995) described that the on-line instructor's primary role is to model effective teaching through encouraging discussion and maintaining group harmony. He further encouraged instructors that:

> Creating a friendly, social environment in which learning is promoted is essential for successful [on-line] modelling. This suggests promoting human relationships, developing group cohesiveness, maintaining the group as a unit, and in other ways helping members to work together in a mutual cause… (p.23).

Means of interaction can be classified as verbal and non-verbal communication. Related studies showed that students' learning satisfaction highly correlated to instructor immediacy in both verbal and non-verbal interactions (Lai, 2004; Lee & Busch, 2005; Rovai & Barnum, 2003) The major drawback of on-line learning is the non-verbal communication found in the traditional classroom (Lee & Busch, 2005; Rovai & Barnum, 2003). However, instructors can still compensate for this by employing various instructional strategies such as encouraging small group discussions, debates, polling activities, learning partnership exchanges, and sharing some of the messages from students that are particularly relevant (Berge, 1995).

The benefits of on-line learning not only remove the physical and time constraints for instructors as well as learners, they also create a perfect opportunity for us to rethink the core principles of teaching and learning in order to build a new pedagogical model for wider teaching experiences (Boettcher & Conrad, 1999). Lockyer, Patterson, and Harper (1999) also noted that, "The increasing utilization of the World Wide Web (WWW) within higher education allows lecturers to re-examine traditional pedagogical strategies and explore ways of taking advantage of the Web potential to provide enhanced learning experiences" (p. 233). The primary concern, when designing on-line instruction courses, is to keep in mind the learners' potential experience. Effectively identifying how to meet the learners' needs is the key element of successful on-line instruction.

Method

This study was conducted with 15 graduate students enrolled in 5 on-line graduate courses using CMS in a Northwest university in the United States. Qualitative inquiry was the primary means in the process of data collection. All interviews were tape recorded and transcribed for the purpose of checking reliability. The participants were asked to describe their perceptions toward taking courses on-line and learning activities they did on the website, with particular attention to the involvement and feedback of the

instructors. During the interviews, students were also asked to reflect on their conceptions of learning based upon past experiences in order to construct their answers in a systematic manner.

Follow-ups were conducted after the first interviews to clarify some of the unclear responses. In order to increase the credibility of the qualitative data, interview transcriptions were also reviewed by interviewees to ensure that the collected information was accurate. Finally, data was organized by grouping respondents' answers together to address the research questions.

Research questions

In order to discover more about the students' perceptions of on-line learning and to test the assumptions about the instructor's role, the present study focused on the issues of instructors' understanding of technology and their participation in the on-line courses. The main goal of this study was to characterize the issues that learners faced while dealing with the instructor-related issue. To accomplish this, the following specific research questions were formulated:

1. How do students communicate with the on-line instructor?
2. What is on-line instructors' capability of using on-line teaching tools?
3. What factors in the on-line courses inhibit students' learning because of on-line instructors?

Results and Findings

The first research question concerned the channel of communication between students and instructors. Fourteen interviewees pointed out that e-mail was the primary tool for them to get in touch with their instructors followed by a private discussion board in on-line courses. 10 students described that their teachers responded to their question in a timely manner, but 9 participants complained about inadequate feedback on the discussion board. For instance, a student indicated her concern:

> I would like the professor to respond more. In both classes I take on-line they rarely do anything, but list assignments. We don't get any feed-back on our discussions with each other. They are interesting and educational, but I could learn as much being on a chat-line. I assume the instructor has more knowledge than the students and that part of their job is to guide us with that knowledge… (ED 2)

Another student suggested that responses from the instructor were very important for him to follow the learning schedule. "Instructors need to make sure they are making contact with their students frequently as I have found that many weeks can go by without a response and sometimes waiting for that response affects the next week's assignment" (IT 3).

In response to the second research questions, 8 out of 15 participants stated that the instructors' unfamiliarity with the course website obstructing their learning. Comments are listed as followings. "It is difficult when the instructors are just learning how to use the site. It would be most useful if they could have some training on implementation of this product. At the beginning of the course, my instructor was very confused and had multiple outlines and assignments posted in different places that didn't match with each other. We didn't know what was going on…and really still don't!" (IT 1). "…the fact that the teachers do not know how to properly use the system makes it very difficult for everyone involved. I have had to spend typically an hour to two hours simply combing through the course sites to make sure that I have not overlooked information that has been posted or changed or added or taken away." (IT 7). Another participant commented that an instructor workshop should be arranged before each semester. "A professor workshop on how to use the system would be great for the teachers that will be instructing via [on-line] format" (SE 1).

The third research question pertained to unsatisfactory factors that were caused by on-line instructors. Poor organization of course materials was mentioned by 6 interviewees. One student said, "I am appalled at the organization of the class I took. Assignments are posted in random areas on the site, the syllabus changed a number of times. I can go on, but basically there is no organization at all" (IT 2). Another student also had the same experience, "It would be nice if professors would organize their sites the same. They put their information under different links. It was a little confusing at first trying to find their outlines, etc" (IT 3).

Discussion

The results of this study showed that most learners' experience with the role and convenience of on-line courses was mostly positive. However, comments regarding the instructors' unfamiliarity with on-line courseware were mentioned by several respondents. This indicated that many instructors did not sufficiently understand how to develop and use on-line courses which caused trouble for students. A quote from a participant illustrates the problem, "I found out how much each instructor really knew about creating a Web pages. How familiar with computers is the instructor? I think some of them are very unsure of themselves and are lacking in knowledge of using a website. That makes it more difficult for the student, too." Thus, equipping instructors with adequate computer skills and on-line teaching knowledge would reduce learners' frustration with the use of on-line courses.

Another major issue was the problem of inconsistency among instructors who created courses. This finding is supported by Tozman's (2005) study in which he pointed out that inconsistency in on-line course design from instructor to instructor was one of the major symptoms of poor e-learning among students. These results reinforce the need of appropriate training for instructors before they begin creating their own on-line courses with on-line course management software. Also, additional training should be offered in a timely manner after new updates have been introduced in order to help on-line instructors upgrade technical skills and know the latest about new technology.

To ensure the effectiveness of Web-based instruction, on-line instructors must understand the needs and concerns of their students. This approach would help instructors to consider the instructional design, pedagogy, and technology when using the Internet as a teaching tool. Related research (Volery & Lord, 2000) described that the instructor's role in on-line learning is not only a knowledge provider but also a learning catalyst and knowledge navigator. Therefore, training instructors in ways to interact with students through using computers is as important as training them on the use of course management software. A new skill set of effective on-line teaching should be established as a training guideline to assure the quality of on-line instruction.

Conclusion

This study investigated the on-line learning experiences of fifteen graduate students especially regarding the input of their instructors. The benefit of this study is that it clarifies the particular aspects of instructor-related issues that closely affect the quality of on-line instruction. Furthermore, the results shown here have practical significance for helping to train coordinators at institutions of HE to develop suitable training programs for instructors involved in on-line teaching. Providing more resources and training will encourage and empower instructors to engage more deeply and well in Web-based courses.

The developing importance of on-line learning has gained attention from both the public and private sectors. Numerous courses are being offered using this format and more are to be expected n the future. It is fundamentally important for instructors to gain more understanding about the various issues of on-line learning. With appropriate knowledge and training, instructors will improve their ability to provide positive and productive online learning experiences for their students.

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