Abstract

Too often the delivery of courses online begins with an attempt to replicate the traditional face-to-face classroom. As educators we are well versed on how to achieve meaningful learning in the traditional classroom, thus, it is only natural to try to duplicate classroom discussions in online classes. With this in mind, the discussion board and programs such as Centra™ virtual class were developed to fill the void that would have existed without them. In order to determine how online courses can be better designed and delivered in regard to achieving the results of discussion, this study evaluated student perceptions of the discussion board and the Centra™ virtual class technology used to deliver AGED 640 online and uses preliminary findings to propose possible solutions to meet this need.
Introduction

Too often the delivery of courses online begins with an attempt to replicate the traditional face-to-face classroom. As educators we are well versed on how to achieve meaningful learning in the traditional classroom, thus, it is only natural to try to duplicate classroom discussions in online classes. With this in mind, the discussion board and programs such as Centra™ virtual class were developed to fill the void that would have existed without them. Since their creation, discussion boards and other virtual communication tools have been credited by faculty with many benefits such as allowing ongoing discussions, reflection prior to response, a safer communication arena for shy students, and a continuance of face-to-face classroom discussion. Furthermore, Woods and Ebersole (2003) point out that positive social dynamics can encourage learning opportunities online which can then result in knowledge construction. However, very little attention has been paid to student perceptions of discussion boards and other virtual communication tools and how these perceptions may be impacting the quality of learning.

The graduate course, *Methods of Technological Change* (AGED 640), is one of several courses taught at Texas A&M University that prepares students to manage international development projects. It has been taught for multiple semesters as an interactive online course. Moore and Kearsly (1996) note that a course is good or poor depending on how well it is designed, delivered, and conducted. Arbaugh (2000) states that “instructors need to develop and cultivate instructional skills such as dividing a class into effective smaller groups of students, developing interesting discussion questions, and fostering intimacy in the online environment (p. 21).” Northover (2002) puts forward six aspects that can contribute to making discussion boards useful for students: value (in regard to learning); challenge (boring topics will lose interest); non-threatening; feedback (instructor confirmation); encouragement (from both instructors and fellow students); and authentic (realistic and meaningful). The design and delivery of AGED 640 incorporates multiple tools to encourage social activity and present course material in a format to enhance learning. In order to determine how online courses can be better designed and delivered in regard to achieving the results of discussion, this study evaluated student perceptions of the discussion board and the Centra™ virtual class technology used to deliver AGED 640 online and uses preliminary findings to propose possible solutions to meet this need.

Purpose

The purpose of this study is to compare and contrast student perceptions and impact of online communication tools, specifically the discussion board and Centra™ virtual class, in order to develop effective strategies to use these technologies to enhance learning.

Methods and Data Sources

A combination of qualitative (interviews) and quantitative (survey) research methods were used to guide the study which was designed to solicit student perceptions of the fourteen technologies (including the discussion board and Centra™ virtual class) used to present course materials and encourage interaction online. Of the thirty-two students enrolled
in the graduate course, *Methods of Technological Change* (AGED 640), during the Spring & Fall 2003 semesters, nineteen were interviewed, and sixteen of those students completed an online survey. Phone interviews were conducted using an interview protocol that had been reviewed by experts in the field. The phone interviews lasted approximately twenty minutes and consisted of seven open-ended questions. At the conclusion of the interview, interviewees were asked to complete an online survey at a designated URL. The online survey consisted of twenty-nine Likert-type scale questions, seven open-ended questions, and nine multiple choice questions. The online survey results were analyzed using descriptive statistics. Data collected from the interviews was examined to determine constructs, themes, and patterns. Reflective analysis was employed to attempt to depict and conceptualize the meaning conveyed by those interviewed. The findings shared are a result of preliminary analysis. This research study was reviewed and approved by the Institutional Review Board – Human Subjects in Research at Texas A&M University.

**Findings and Conclusions**

Students participating in the study represented both males (8) and females (11). In addition, students expressed a wide array of experience with computer technology, with seven indicating to be novices, four indicating intermediate experience and five indicating proficiency. For many of the students (P2, P3, P4, P5, P6, P7, P8, P13, P14, P16, P17, P18, P19), this course was not their first experience in taking an online course. Evaluation and synthesis of student responses reveal that students’ opinions and experience varied in regard to both the discussion board and Centra™.

The discussion board was articulated to have been less useful than Centra™ with 31.3% of the students reporting that it was “not useful.” In general, those who found Centra™ to be very useful also found the discussion board to be useful. Three students indicated that both the discussion board and Centra™ were not useful. In response to the statement, “The discussion area was easy to use,” 81.3% of the students agreed. In response to the statement, “Interaction with other participants was valuable,” 75% of the students agreed.

It is interesting to note that when students were asked on the survey “what information or activities was ‘most valuable’ or ‘least valuable’” – students noted the discussion board or Centra™ in response to these questions more often than any other item. In addition, when asked in the interview what they liked or disliked about the course, the discussion board or Centra™ was mentioned more often than other technology. This finding indicates that students had strong feelings about the use of the discussion board and Centra™ whether favorable or unfavorable.

Students had divergent reactions to the use of the technologies: discussion board and Centra™. Seven students (P2, P5, P9, P14, P15, P17, P18) specifically stated during the interview that the use of Centra™ in the course was beneficial. While only three students (P3, P11, P19) indicated that they did not feel Centra™ was necessary for the course. Two of these students indicated that they experienced technical problems which prevented them from participating. This can lead one to conclude that the technical problems influenced
their opinion of the technology. Two students (P6, P8) specifically mentioned during the interview that they liked the use of discussion boards, while three students (P1, P2, P3) indicated that the discussions were their least favorite aspect of the course.

Specific aspects of both the discussion board and Centra™ were noted by students as either positive or negative. Some students (P6, P8) expressed that they liked reading others posts and liked the fact that they had time to put together their thoughts and ideas before responding (P5), and could work at their own pace (P11). However, when asked what they liked least about the course, several students (P1, P2, P3) indicated that they felt posting to the discussions was “busy work” (P1). Students felt that they were merely filling a requirement and had to struggle to add something original to the discussion. Self-directness appeared to be a characteristic that impacted like or dislike of the discussion board activities. One student (P10) shared that while discussion is important in a traditional classroom, it is not necessarily beneficial in an online classroom. Students mentioned that “body language” was one aspect that was definitely missing from the online classroom (P13, P18) and that while the technologies attempted to bridge the gap – the gap still existed. One student noted that the “use of Centra™” attempted to make the course more personal and interactive; however it was still difficult to feel a sense of community (P18).

As seen by student responses, there is a divergent view regarding the use of discussions within the online classroom – whether asynchronously or synchronously. One student shared in the survey, “…although I didn’t particularly enjoy the discussion boards, I wouldn’t remove it from the course.” This statement further illustrates the need to form guidelines to assist instructors in using discussion boards and Live meeting software such as Centra™ as effectively as possible to facilitate learning for all students.

Implications and Educational Importance

The educational importance of this study is grounded in the fact that the use of technology-based communication tools, such as the discussion board and others, has become almost universal for online courses, both domestically and internationally. However, very little is known about student perceptions of online communication tools and the impact this may have on learning. “Proper attention to the design, facilitation, and maintenance of an online instructional discussion is critical to promote students’ constructive thinking” (Muilenburg & Berge, n. d., p. 1). The findings of this study illustrate the importance of making discussions through either a discussion board or through Live online meetings focused and purposeful for the learner. Vonderwell (2003) states “the social and pedagogical presence of the instructor is essential for improved communication and learning (p. 88).” Factors such as individual characteristics of the learners (i.e. shyness), student roles (i.e. listeners), and lack of student engagement can be overcome if the instructor puts forward activities that meet the needs of learners.

Each student is unique in how discussion facilitates learning. Meeting the individual needs of students can be challenging. This is true regardless of delivery but becomes magnified in an online environment where instructor/student interaction is changed through the use of technology. As one delves into the area of encouraging discussion, it is important
to remember that the purpose of encouraging discussion is ultimately to encourage thinking. Thinking is the goal. How we encourage thinking without turning students off through the use of online discussion boards or Live online meetings is a challenge. While discussion boards are aimed at replicating traditional classroom discussion, this study reveals that many students do not perceive this to be the case. The complaints shared by students are very real: being forced to post something in order to earn a grade, delay in student reply, and the amount of time required. While a traditional course begins and ends based on a set meeting schedule, online discussions can span entire weeks depending on how fast a student can read. Participation via discussion boards can take much longer than participating in a traditional face-to-face classroom.

Based on the findings of this study, the researchers propose a variety of ways to create/replace online class discussions that may achieve greater interaction and higher levels of learning. These activities include: simulated discussions (audio/recordings); reflection logs; and combination/alternative options (providing students the option to participate in live discussions boards or submit reflection logs). Simulated discussions involve the creation of carefully scripted discussions that cover the critical points of the topic. These discussions are recorded and provided to the student to be listened to or read. Students then submit a one-page reflection based on the pre-scripted discussion to the instructor. Reflection logs are merely a means of encouraging the student to think beyond that which has been stated. Reflection logs are submitted directly to the instructor – this is a good option for shy students who prefer that other students not read their comments. Providing options, is just that, providing the student with options to participate in learning the material based on their own personality, time constraints, and preference.

While Centra™ was used primarily for presentations in the course studied, it is important to recognize that this tool can be used for other purposes to facilitate student discussion. The researchers offer the following guiding points based on findings of the study: be aware of the reason that students took the course (Live meetings are not asynchronous); provide alternatives for students who are unable to participate (record the session and allow students to submit a summary of the meeting); keep to a schedule; do not let technical issues over shadow the reason for connection; use Live meetings for an explicit purpose; maintain a set structure to the connection/time; allow students flexibility (they can connect late).

The use of discussion boards is an integral part of many online courses. Based on findings from the study, the researchers offer the following guiding points: keep questions focused, short and to the point; provide avenues for long-winded students to post in general areas; carefully consider the weight of points to be attributed to discussions; make discussion board requirements known to students; provide evidence to the student of the instructor reading his/her posts; do not take over the discussion; provide alternatives for quiet students (i.e. reflection logs, summarizing posts).

Unanticipated benefits of using online discussions include a written record of what is discussed, more time than a traditional classroom discussion to interpret what has been shared, and a state of anonymity which makes it more comfortable to ask for further
explanation (Smith & Hardaker, 2000). In addition, discussions both asynchronously and synchronously encourage exposure to diverse views and perspectives. Thus, while the researchers encourage instructors to consider alternatives to traditional online discussions, they do not discourage the use of well-planned and purposeful discussions in the online classroom. Understanding how to use technologies effectively will help course developers create effective online international development courses and training.

References


