Chapter 10
Web–Based Technologies for Ensuring Interaction in Online Courses:
Faculty Choice and Student Perception of Web–Based Technologies for Interaction in Online Economics

Olivia P. Morris
Online Learning, Chicago, USA

ABSTRACT

This chapter discusses findings from a study of five faculty and 33 students from micro- and macroeconomics sections of online economics courses over the course of a semester. The study investigated faculty choice of web-based technologies for interaction and students' perceptions of such technologies. The objectives of the study were twofold. First, the author investigated faculty choice of web-based technologies for three major types of online interactions (learner–instructor, learner–content, and learner–learner). Second, the author examined student perceptions of technologies and recorded recommendations. Results from two online surveys of faculty and students at 2- and 4-year colleges showed strong agreement with perceptions of Moore, Drouin, Rhode, and Gardner. Faculty and students reported learner–learner interactions as the least important of the three interaction types. Although the discussion board was most effective for all three types of interactions, students from this sample did not prefer more learner–learner discussions.

OVERVIEW

Innovations in web-based technologies continue to impact online courses and online interactions. Researchers showed that student satisfaction relates directly to their perceptions of interactions (Drouin, 2008). Knowing the ideal amount of interaction in online courses is of great significance to educators who address student satisfaction and retention. Acquiring such knowledge compels the need to discern whether online faculty's choice of web-based technologies has captured the di-

versity in student needs and perceptions of online interactions.

Studies confirmed that students' need for interaction varies and suggested that an ideal balance of interaction might exist (Anderson, 2003). Evidence from the studies supports the importance of achieving a balance between faculty choice of web-based technology and students' perceptions of the same web-based technologies used to promote learner–content, learner–instructor and learner–learner interaction in online courses. Although the discussion-board forum was cited as the most effective for all three types of interaction, students indicated it should not increase, but remain relevant to the subject area and needs of the class. In addition, a majority of students rated the technologies for learner–content interaction as having greater impact on their learning than the technology used for learner–instructor interaction. Most students in this sample recommended an increase in the use of online multimedia movie clips, podcasts, video lectures, and tutorials—that could be accessed through mobile/portable technologies such as iPhones, Kindles, Netbooks, and Laptops. Faculty and students perceived interactive homework tools, such as Aplia, as particularly suitable for interactive graphical and numerical aspects of economics, but cautioned about the purposes for which they were used. Online conferencing sessions such as Elluminate were scored as "Good for Learner–instructor" interaction, but not as important for learner–learner and learner–content interaction.

The focus of this chapter is to reinforce the inevitability of diverse preferences for web-based technologies and identify web-based technologies to ensure effective interaction in online courses. In pursuance, the author briefly explored the background surrounding interaction in online economics courses, the major theoretical perspectives on interaction, methodologies and variables, and here shares major findings, conclusions, and recommendations of the study.

BACKGROUND

Overall reviews suggest that teaching strategies in economics at 2- and 4-year colleges have gradually adjusted to the advent of new technologies. Instructors incorporate more interactive software and games to enhance student learning of concepts, and graphs and charts to develop analytical skills, thereby creating active student-learning environments. However, because technology tools are becoming vital teaching aids in online economics courses, it is important that instructors know how to assess a piece of technology. Faculty choice of technology may not correspond with students' needs for interaction. Drouin (2008) reported that "while some students enjoyed, needed, or desired social interaction, some students did not desire a sense of community (SOC) in an online course environment" (p. 267). Because students have different needs for online interaction, it is important to investigate whether faculty choices of technology consider the disparities in various learning settings, including economics, and meet students' expectations.

Consequently, technology resources can be wasted on providing interaction that does not necessarily enhance student learning. A particular level of social interaction may be ideal in online communities and care should be taken to avoid exceeding that level (Rourke, Anderson, Garrison, & Archer, 1999). Future research should focus on qualifying the "ideal amount of student–student and student–instructor interaction within different types of online interactive instructional environments so that educators are better able to construct effective social settings within the online classroom" (Drouin, 2008, p. 281). Though it might be unlikely to find the perfect mix between independent study and interactive learning strategies and activities that meet the needs of all students, it is advisable to aim for an ideal mixture (Anderson, 2003).

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