

ORGANIZATIONAL NOTES FOR VIRTUAL COURSES IN ECONOMICS AND FINANCE

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INTRODUCTION

In an attempt to meet the needs of a society that is becoming more technologically savvy and demanding increased educational opportunities, postsecondary institutions are looking at new ways to provide instruction. In basic terms, a classroom can be defined as a communication system that makes it possible for a group of people to come together to dialogue about something they want to learn, and to look at visuals and text that might aid them in understanding [2]. The conventional classroom is surrounded by walls that provide protection from outside noise and interference, contributing to a more effective learning process [5]. A virtual classroom, on the other hand, is a system that provides the same opportunities for the teaching and learning process, beyond the physical limits of the traditional classroom's walls, thanks to the use of computer communication networks. Due to the ubiquity and popularity of the Internet most virtual classroom implementations are Web-based. Some of the benefits of a Web-based (virtual) classroom are its geographic, temporal and platform independence, and its simple, familiar and consistent interface. Some of the drawbacks are: limited access to the Internet worldwide; resistance to shift to new and alternative teaching and learning paradigms or methodologies; privacy, security, copyright and related issues; and a lack of uniform quality [4].

The general purpose of this paper is to provide suggestions on how to organize a virtual classroom for courses in economics and finance. Three specific focus areas are course design, student/instructor communication, and course evaluation. The discussion is driven by the experience of the authors preparing and teaching a combined total of seven Web-based courses. Of particular interest to a reader preparing for his or her first virtual course is our discussion relating to links, testing, e-mail, bulletin boards, chat forums, and using a classroom management system.

COURSE DESIGN

Developing a virtual classroom will add a significant amount of work to the instructor's daily routine. This extra effort should be quantified (and limited to a certain maximum, if possible) beforehand and measures should be taken to work around the impact of the new tasks on the instructor's overall schedule. It is almost impossible to prepare a course in less than one hundred hours and some claim that the process can take over five hundred hours. Given the time-intensive nature of the process it is beneficial for the online instructor to visit several distance classes that have already been designed. It is beneficial to observe the mix of teaching materials/activities each distance instructor uses, the look of other courses, the interaction of the instructor/students, the technological demands on the instructor and the students, and the role of institutional support. Along the same lines, it is beneficial to interview experienced distance instructors in order to discuss techniques for planning and organizing course content, developing a course Web site, addressing class administration issues, and encouraging interaction [3]. These discussions will enable teachers to gain a realistic view of the demands of online instruction.

An essential element of the instructional delivery of distance education is the use of a course Web page, accessible only to students enrolled in the class. Creating effective Web pages has become a relatively simple task as a result of user-friendly software programs. If instructors know how to create course materials in Hypertext Markup Language (HTML) or Composer, complete with links for navigation, they can develop their own Web pages for student access. This method requires little initial cost but a good deal of time for planning and development plus a strong technological infrastructure from the institution. The advantage of creating your own Web page is that it allows complete control over the course design, content, and procedures. If instructors have access to a server but possess limited time or technical expertise, they might consider using commercially developed software or a course management system (CMS). With a CMS, instructors must still develop their own course materials or individual files but the CMS software takes care of linking the documents for student navigation. Examples of such systems include Topclass, Web Course in a Box, and Web CT. These systems generally provide their own tools for communications such as e-mail, threaded discussion, and teacher announcements. Additionally, they grade online student tests automatically and allow instructors to track student progress. An additional option available to instructors is to incorporate materials already available online from a textbook author/publisher. At these textbook Web sites, students are able to observe a PowerPoint presentation, read lecture notes, and take automatically graded quizzes or exams. Thus, much of the work instructors normally spend on preparation and development of course materials is eliminated [2]. Students can access these sites directly or through links provided in the instructor's Web pages.

There are a few rules of thumb that should be considered during the design process. One thing to keep in mind is that the course Web pages should provide a consistent look and feel, both for aesthetic as well as functional reasons. Much work is saved if a small set of pages with little or no content is developed before the actual course contents are composed. These pages can be used to test the look and feel of the whole site, and can eventually be used as templates for everything else. After having decided on the basic template for the course pages, it is time to refine it, making sure all the necessary and desirable elements will be included. Navigation buttons are of utmost importance, regardless of their appearance. At the very least, students should be able to know, just by looking at any Web page, where they are, how to move forward, backward, up, or down, and how to return to the course main page. Finally, before adding any item to a page one should ask how much that piece of data will add to the overall educational goals of the course and what is the price to pay (slower transfer, more strict hardware requirements, need for special plug-ins, etc.). For example, there is a temptation when designing your first Web course to utilize a wide variety of links to alternative notes, articles, and other information. The nice thing about using links is that they help direct students to useful material. On the other hand, links suffer from several problems including inactivity as Web addresses change, conversion to pay sites, and/or burden students with excessive reading of material that may or may not be directly related to the learning objectives. The learning experience for students can be very frustrating when problems exist with the links. For this reason, we recommend that virtual instructors use links to augment their course but the use should be in moderation since the instructor needs to continuously maintain the links.

STUDENT/INSTRUCTOR COMMUNICATION

The biggest challenge of online instruction is creating an appropriate mode for instructor/student communication. Because online learning is a new experience for most students, an initial class meeting can be beneficial. It provides an excellent opportunity for students to meet the instructor and each other, ask questions, and become acquainted with the course logistics. Of course, a class meeting at the beginning of the semester should be optional as a required session may violate a time or geographic constraint that often makes the virtual classroom attractive in the first place. There are basically two possible ways of implementing instructor/student communication in a virtual classroom: synchronous and asynchronous. Synchronous communication tools, such as ClassPoint or NetMeeting, allow the instructor to teach live lectures through the Web using resources such as audio and video conferencing, whiteboard and text-based chat. Students can interact by asking questions, normally using a text window. Some type

of floor control is normally desired, to prevent chaos and ensure that students will have their questions answered in a first come first served basis. There are two major problems with synchronous communication in the virtual classroom. First, synchronous communication requires that all students and the course instructor be online at the same time. Working students or students in different time zones may have a hard time coordinating their schedule in a way that incorporates synchronous communication. Second, synchronous communication puts a practical limit on the class size to no more than twenty. In essence a chatroom allows more than one student to ask a question at the same time. Imagine the chaos associated with teaching a course on campus and having twenty or more students bombarding you with questions at the same time. Because of the limited nature of synchronous communication, we recommend organizing virtual courses with a bias toward asynchronous communication.

Asynchronous communication has the advantage of providing students with self-paced work opportunities. With asynchronous instruction there is no specific time or day that instructor/student communication takes place. The primary tool used in asynchronous communication is e-mail. In general, the instructor sends an e-mail to the entire class once or twice a week with comments about the material plus problems and procedures important to the course, while the instructor responds to individual questions when needed. In our experience the use of e-mail communication for online courses has been very efficient. The only major drawback is that an instructor can be overwhelmed by the massive amounts of e-mails he or she may receive in a day if course enrollment is very large. Of course, many of the students have the same question so the instructor may only have to respond to a question one time if the response is forwarded to the entire class as part of a weekly instructor comment message. Another tool for asynchronous communication is the bulletin (message) board. A bulletin board is an area where the teacher and student post messages to the class. The instructor may post messages intended to engage the class in discussion or to clarify an assignment. To illustrate the benefit of the bulletin board, imagine that an instructor has received an e-mail message from a student who is confused about an assignment. Because other students may have the same problem, the teacher posts a clarification to the bulletin board and messages the student with thanks for his or her feedback and reference to the posting. Ideally, students should feel comfortable posting their questions to the message board. Other class members can then respond with assistance and report obstacles they have encountered. The instructor's responsibility is to monitor the message board and offer guidance when needed. Students must be reminded via e-mail to check the message board frequently; however, the quality of the information being shared will serve as an incentive for more frequent access. The authors have incorporated the bulletin board into all of our virtual courses but we have only had a modest amount of success with this tool. At this point it appears that most of our students prefer to communicate through e-mail.

A suggested way to resolve the synchronous versus asynchronous communication question is to incorporate both modes into a virtual course. This is easy to do if you give students access to the chatroom during virtual office hours. Simply go into the chatroom for a couple of hours each week during a specified time for office hours. Any student desiring real-time communication is welcome to enter the chatroom. While the majority of students are satisfied with e-mail and bulleting board communication, a few will take advantage of the direct communication offered in the chatroom during office hours. A course syllabus and/or calendar is a good place to post virtual office hour availability.

COURSE EVALUATION

Student evaluation via testing or assignments and evaluation of the online course and instructor by the students are two of the most controversial components of Web-based instruction. A continuous dilemma for instructors of online classes is whether to utilize online testing, require students to come to campus to take exams, or evaluate course performance based on assignments and/or projects. An objective style online test can be tedious to set up, but when they are automatically graded they provide immediate feedback to the students and also eliminate instructor grading. Most course management systems allow the instructor to create online exams beforehand, with date and time restrictions. The consequence of online testing is that the instructor can never be sure if the student enrolled in the class

actually took the test. The main issues behind cheating prevention are impersonation and security. Some possible solutions involve: requiring the presence of a proctor close to students while they take the test; establishing a time window during which all the students should attempt the test; and using randomly selected and sorted questions out of a larger repository of possible questions. During the infancy stages of online instruction we required students to come to campus for a comprehensive final exam and counted it as a substantial percentage of their final grade. We found that when students are required to come to campus for testing, it often presents a scheduling problem for them. In addition, students often view campus tests as being contradictory to the major goal of online courses. After three years of experience with evaluating online student performance, we recommend online instructors combine applied assignments/projects with online multiple choice testing (repository of random questions) in order to evaluate student course performance. The cheating problem is always present but our experience indicates that very few people are willing to do the work and take responsibility for the performance of another. As a general rule, it appears that cheating is only a nominal problem in upper-level courses but steps should be taken to prevent cheating in introductory level online courses.

In an effort to continually improve an online course, at the end of each semester we recommend sending students an online course evaluation form as an attachment. The evaluation form should ask them to evaluate the course, its contents, availability of the instructor, online software features, testing methods, and interaction procedures, as well as their understanding of the class organization and grading process. Students should also comment on the features they like best and the least about the course plus have an opportunity to make practical suggestions to improve the course. Student evaluations help determine the effectiveness of the various components of an online course and address areas that may need revision. A general warning that needs to be issued here is that few virtual courses receive student course evaluations that are as high as the equivalent campus-based course. While negative feedback can be demoralizing, it is important to obtain this information in order to improve course quality. Finally, online instructors should discourage institutional evaluation of online courses for the purpose of promotion and tenure or post tenure review since the technology and institutional support are still in the development stages. Virtual courses will improve in time but at this point applying traditional campus student evaluations to the online instructor is riddled with several problems.

CONCLUDING REMARKS

Despite the growing number of online courses available on the Web and the hype around Internet-based learning, the current use of Web-based virtual classrooms is very limited but improving. The main factors behind the limited results include insufficient technical knowledge, reluctance from educators, and lack of resources and institutional support. On the other hand, virtual learning can be effective when there is a good match of material and media. Good distance learning programs require careful planning; the more carefully the course is planned, the more likely it is to meet the educational needs of learners.

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