Time Requirements in an Online Teaching Environment: How to be More Effective and Efficient in Teaching Online

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While it might intuitively seem that teaching online saves time as opposed to teaching face-to-face, time requirements are often much greater. Different presentation and management techniques must be learned, adding time to course development, administration and delivery. Professors must understand the challenges of delivering courses (or perhaps just portions of courses) online, as the number of students taking classes online and the number of online classes offered are both increasing dramatically, and they must learn how to deliver them effectively and efficiently. This paper contributes numerous ideas, using various types of technology, for effective and efficient delivery of courses online.

INTRODUCTION

The number of students taking online classes is increasing dramatically. According to the Babson Survey Research Group study (the 2010 Sloan Survey of Online Learning) published November, 2010, the percentage increase is about ten times the increase in students taking traditional college courses. This study reports that "Over 5.6 million students were taking at least one online course during the fall 2009 term; a 21 percent increase over the number reported the previous year," and that "more than thirty percent of higher education students now take at least one course online" (Allen and Seaman, 2010, p. 2). The Sloan Survey of Online Learning includes survey information from 2,583 responding colleges and universities that are degree-granting institutions of higher education in the United States which are open to the public.

Times of recession traditionally mean more college enrollment and the current recession is no different. This is proving true in both traditional universities (public and private) and for profit institutions of higher learning. Bridgepoint Education, Inc. is a specific example of this enrollment increase in a for profit institution. They, along with many other for profit institutions of higher education have been very aggressive in online course offerings. Bridgepoint has 30,000 plus online students, as well as a small number of students who actually attend on-campus classes (Bagley, 2008).

In early 2009, The Chronicle of Higher Education recognized that there would probably be more adult students taking online classes as a result of the recession. They quoted an interview with Elaine Allen, co-author of the Sloan Survey of Online Learning, who strongly believed that as well (Kolowich, 2009).

Teaching online is much different than teaching face-to-face. The 2009 Sloan Survey posed the question as to whether institutions are training their faculty to teach online. Most do provide training, with the most common methods being either mentoring or courses developed in house at the universities (Allen and Seaman, 2010). According to the survey results, online education is here to stay. Southern New Hampshire University, once an economically challenged private nonprofit university, found a niche in online education and increased its enrollment from 1,700 to 7,000 students over a four year period. This growth provided a surplus that the university could invest in buildings, employee salaries, financial aid, and improvements in the online program (Parry, 2011).

Considering the growth in online education, it is critical that professors learn how to develop online classes efficiently and effectively. The rest of the paper includes a discussion of related literature, topical suggestions for increased effectiveness and efficiency in online education that were learned from the authors' experiences in online class development and teaching using Pearson's eCollege platform, and concluding remarks.

LITERATURE REVIEW

There has been much research comparing the effectiveness of face-to-face classes to online classes. In fact, the U.S. Department of Education even concluded that online or hybrid modules were more effective. Carrol and Burke (2010), however, conducted a study of two sections of a required organizational theory MBA Course, one in a traditional face-to-face class, and the other online to investigate the U.S Department of Education's conclusion in favor of online or hybrid classes. Their results did not support that either teaching method was more effective. One of their suggestions was "that the online mode of delivery should develop online team projects and the face-to-face mode should consider using online applications in the delivery of the content" (Carrol and Burke, 2010, p. 70).

Faculty members need training and experience in online education since many courses are going to a hybrid method of teaching. This means simply that part of the class is delivered face-to-face and part is delivered online. Colucci and Koppel (2010) address the issue of *when* in the course it is best to have the face-to -face meetings. Keller, et al (2009) compared the effectiveness of teaching introductory managerial accounting face-to-face and in a hybrid environment.

According to a prior 2008-2009 Sloan Online Survey, the amount of time required to teach or develop an online course was rated to be somewhat more than a traditional face-to-face class by 31.5% of the respondents, and "a lot" more by 53.9% (Brainard and Richards, 2010). Bradley (2011) confirms that the time required for online design can be much greater than for a face-to-face class, especially when the instructor is responsible for the majority of the programming. Bryant, et al (2005) noted that class preparation could take at least 2.5 times that of a traditional course, and this doesn't include the additional time it takes to actually teach and manage the course, especially when discussion boards are used.

Ozkul and Rena (2011, p. 209) discuss the improvement in equal opportunities in education due to online education; however, "little theoretical development or empirical research has examined teaching effectiveness in distance learning." One of the main drawbacks of distance education is the loss of student-to-student interaction. This deficiency can be minimized by including group projects or group discussions, thereby increasing student collaboration (Ozkul and Rena, 2011).

Bradley (2011) also noted the lack of a unified theory of online learning and lack of research comparing the effectiveness of online learning modules. The author set forth a conceptual framework for designing and evaluating online modules based on the following three interactions: (1) student and instructor, (2) student and other students, and (3) student and course content. By requiring student to student interaction such as team projects, a community-centered environment is created.

Robinson and Hullinger (2008) studied online participants from various courses from three universities using the engagement dimension from the National Survey of Student Engagement. Their results found that students were moderately engaged. Once again, the authors found that collaboration was the key to increased learning online. Effective online design should "actively engage students through challenging academic rigor, consistent and timely student-faculty interaction, a collaborative

learning environment, and activities that enrich the development of the student" (Robinson and Hullinger, 2008, p. 107).

The effectiveness of blended courses was evaluated by Wu and Hwang (2010) through a student questionnaire survey. Two of their results regarding improved effectiveness related to the usability of the online system and the ease of use and media richness of the content. A well-designed e-learning system can positively impact a student's intention to use the system, and likewise their performance in the course. Also, media richness, such as embedded websites, positively influenced the usability of the e-learning system.

Finally, Bryant, et al (2005) provided an overview of distance education literature broken down by the following areas: (1) the communication medium, (2) the educational organization, (3) the teacher, and (4) the student. In each area, the authors provided suggested research topics specifically related to accounting education. As previously noted, incorporating higher-order learning activities such as group projects or journaling, as well as creative activities, such as online scavenger hunts or tutorials, can easily be incorporated in an online class to assess the learning objectives and improve the effectiveness of the course.

ONLINE TEACHING COMPONENTS

In this section, various tips and techniques for efficient and effective online teaching are discussed, grouped by common components of an online course.

Course Home

The Course Home in Pearson's eCollege platform includes a number of items that welcome and provide structure and references that enable online students to successfully become engaged in the class, which is especially important for first time online students. Examples of these items are a homepage overview and welcome, syllabus, instructor bio and picture, library information, navigational guidance, technical resources, class introductions, class format, and announcements.

One of the most important parts of an online course is the homepage overview and welcome introductory post from the professor to the students. This post should detail what will be delivered to them in the class and what is expected from them. Included at the end of this paper in Appendix 1 is an introductory post for an online graduate Financial Statement Analysis course. It has evolved over time as the authors have become more familiar with students' questions as they enter an online course, many of them for the first time. While this introduction is for a specific course, the idea of giving precise directions to the students immediately at the beginning of a course term is applicable to any online course. The students should be directed to carefully read the syllabus. Initiating an instructor presence can be achieved by adding an instructor biographical statement and photo.

In the professor's welcome post, the students should be directed to make a posting in the Class Introductions content item. Questions can be posted for each student to reply to regarding themselves. The professor should reply to each student to increase the students' comfort level and enhance the professor's online presence. Some of the students may already know each other from previous classes, but others may not, so the introductions help them get to know each other. This is useful for group work.

The syllabus should be a separate content item under the Course Home that establishes process, procedures, and expectations, as well as course objectives, grading policies, assignment details and submission guidelines. Students can easily refer back to the syllabus as necessary. If the online system allows, it is beneficial to email the syllabus to the students a few days prior to the opening of the class.

Other useful reference content items can be included such as library information, navigational guidance, and technical resources. Easy access to these types of references will give the students more confidence as they begin the class.

The Announcement area of the Course Home is an effective way of communicating new information to students rather than emailing. Make sure the students are told to always check for new announcements.

For example, the professor may want to have an announcement scheduled to open at the beginning of each new unit. These can be prepared in advanced and scheduled to open on specific dates.

The class format should be included in the syllabus as well as a separate content item under the Course Home. As in a traditional face-to-face class, an online class works best with a consistent schedule. For example, each unit should be set up in the same order: Introduction; Agenda; Objectives; Lecture; Discussion; and Self-test Quiz. By giving the students redundant instructions in various locations, the students will feel better equipped to navigate the course.

Lecture

Course content delivered through multimedia can increase the richness of delivery while addressing different student learning styles. Audio or video clips of unit introductions recorded by the professor contribute to the professor's online presence. This personal touch can be achieved by using an inexpensive flip camera, or a webcam, to record and upload video recordings to an online class.

To make the lecture more interesting, the professor can intersperse written content, recorded PowerPoint presentations, student directed exercises, linked YouTube videos, and linked web material. Camtasia software can be used to record a synchronized presentation of PowerPoint slides. Creating PowerPoints and the recordings that have to be produced and uploaded into the class is a very time consuming process. In order to maintain the student's attention, it is best to break up the lecture into five to ten minute segments. This also makes it easier to revise small parts of the lecture to change or add new material at a later date. Also, problems can be worked and recorded simultaneously in Excel using Camtasia.

Another time consuming aspect of audio related course development is the need to observe American Disabilities Act (ADA) guidelines. A transcription of all video or audio should be incorporated into the course. Some professors may write up a transcript prior to their audio recordings, while others may transcribe after the recordings are complete. Use of voice recognition software such as Dragon can be useful in transcribing audio. The Premium version of the software, which can be purchased with an educational discount, can be used to transcribe completed recordings. Although this time saving technique is not completely accurate, at least it gives an initial document that can then be corrected, rather than having to listen and transcribe manually.

Discussions

Instructor-student and student-to-student interaction can be achieved online through discussion boards. These can be set up in differing ways, but ground rules must be established in the beginning. For example, a journal article can be assigned and discussion questions posted by either the professor or an assigned student. In order to encourage student interaction, the students can be required to post their response to the discussion questions and reply to at least two other posts of their classmates. By assigning points and answering posts, the students will definitely participate. In fact, many students really enjoy this facet of an online class. In order to promote a richer discussion, students should be required to make their initial posts early in the unit so that others will have time to read the initial posts and make thoughtful reply posts before the end of the unit.

Students will research online and possibly quote what they find. They should be cautioned to reference where their information is obtained, just as if it were a hardcopy document. Encourage them to use the Webliography online tool, if available, so others can easily connect to their informative sources.

The policy of the professor's participation in the discussions should be conveyed to the students at the beginning of the class so the students will know what to expect. An example of this would be to let the students know that the professor will read posts and add comments by a certain day of the week. Managing discussions contributes to the time requirement of online education.

Assignments

Online students are taking their courses using this method due to many reasons such as scheduling conflicts with face-to-face course offerings, distance from campuses, work time conflicts, work travel,

and various other issues. In order to seek to avoid further scheduling conflicts, it is student-friendly to have assignments due at the same time every week. Students can, of course, submit them earlier if they choose to do so. Instead of weekly assignment due dates, a professor might require completion of all assignments prior to an exam. However, given this latitude, student procrastination may lead to poor performance.

Publisher algorithmic online homework managers can be used in certain subjects such as accounting. By using this feature, students will receive automatic feedback and professors can easily review the students' work and transfer the grades to the gradebook in the online class.

Major Projects

Depending on the subject, the professor may require major projects to be presented in a bound, hardcopy format. If this is made known as part of the original class instructions, this should cause no issue. The students should be advised that a paper that is presented in this professional manner, whether in a work environment or as part of a course, is much better received and carries more authority. However, there may be students who are in another state or county. An alternative is to use a Drop Box feature of an online platform, whereby, the project is uploaded and the professor can grade it online along with comments.

Handling Online Posts and Emails

One of the biggest issues with an online class can be trying to keep the questions and answers in the discussion boards so that all students can see them. One way to achieve this is to set up a "Professor's Office Hour" in each unit in order to narrow the discussion to the material covered that week or projects that they might be completing. This way others can benefit from student questions and professor replies without the professor having to answer the same question numerous times. To support this, it is a good idea to encourage students to post all general questions in the "Professor's Office Hour", with emails used only for personal questions, for instance, a question about an exam grade.

The professor must also monitor all online posts, though, to make sure that they stay focused and are not detrimental to the class morale. For instance, if a student posts negative comments about an assignment or exam, that needs to be addressed immediately.

Exams and Quizzes

Obviously there is a different level of security, and there are potentially different types of cheating issues, with online courses than with face-to-face courses. When administering an exam in a face-to-face course, for instance, the professor can easily monitor that no computer usage or research is taking place during the exam. This is much more difficult during the administration of an online exam. One tool for addressing this issue is to use lock down browser software such as Exam-Guard. While not fail safe (a student could have another computer that they are using to search online) such a tool does disable the browser function on the computer that the student is using to take the exam. Also, by using pools of questions, no two students will complete the same exam. Furthermore, the students should be instructed to prepare for the timed exam as if it were a closed-book exam because they will not have the luxury of spending time to research their answers.

Quizzes can be used either as graded assessment or practice assessments. If used for graded purposes, using pools of questions would once again be recommended to prevent cheating.

Depending on the online platform, grading problem questions can be very time-consuming because the answer area is not very large and it is very hard to line up numbers. One way to address this issue is to have the multiple choice portion of the exam separate from the problems. The students can be directed to complete their number-oriented problems in Excel and upload their answers to a Drop-Box. Unfortunately, Exam-Guard cannot be used with this approach. However, using this method is less frustrating for the students working the problems and less frustrating for the professor to grade. In order to compensate for the lack of security, the problems can be changed before the next time the class is offered.

Textbook Content

Most of today's accounting texts have content that can easily be used as supplemental material in an online setting. These include power point summaries of chapters, audio and video clips, and perhaps other materials, depending on the text and publisher. However, the professor should keep in mind that if there is a change of publisher, the previous publisher's content will need to be deleted due to copyright issues.

When creating PowerPoint lectures, it is advisable not to reference the text. If there is a change of text, the PowerPoint slides and recordings will also have to be changed to prevent the students from being confused. This can be a very time consuming task.

Level of Information Technology Support

For professors without an information systems or programming background, a lack of Information Technology (IT) support for their online classes can dramatically increase the amount of time spent on an online course. Even with information systems experience, completing all the development of a course can be very time consuming.

An experienced IT support staff can make teaching an online course much less onerous and technology focused. With good support, the professor can focus on organizing the materials in a manner best suited for online presentation and learning.

Professors developing an online class should also take advantage of the online experience of other professors. Most professors are more than happy to share their time-saving tips and "dos and don'ts" regarding online development. For example, a good tip is to use tables (where the lines are not seen) to make columnar material very organized, since the word processing functions may not be as user-friendly as Word.

It is easier to receive personal instruction on the steps of creating a week of an online course and how to use the various functions of the online platform, than it is to simply read instructions. With hands on assistance first, and then the written instructions as a reference, the learning curve is minimized and possible frustration decreased.

Follow-Through

Communication by both the students and the professor is another very important facet of an online course. The professor must continually check to make sure the students are fulfilling the course requirements with respect to assignments and communication via the discussion boards. The professor must also communicate with the students as promised in the introduction to the course. Since all communication is online, it is very important for the professor and students to maintain an online presence at the times and in the manner indicated at the start of the course session.

CONCLUSION

Developing and teaching an online class can be very time consuming. The planning time is definitely longer until one is familiar with online education. The professor should seek help from IT personnel and other experienced professors who can give helpful tips to decrease the learning curve when creating an online class for the first time. Once a course is developed, revisions and updates may be necessary each semester, and the professor should allot time for those as well. Also, in addition to the time required to develop or update the course, manage discussions and give feedback, students expect the professor to be available online many more hours than the professor would spend in a face-to-face course.

With online education expanding in both the number of offerings and the number of students, professors must be well trained and knowledgeable in this method of course delivery. Online education can be a very effective method of teaching by taking advantage of multi-media, learning activities, and discussions that include student-student and faculty-student interaction. The most important points are to have a structured course environment, maintain an online presence, and communicate with the students.

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APPENDIX 1
SAMPLE INTRODUCTORY POST

Comprehensive Class Information/How Our Class Will Be Conducted

Once all group sign ups are completed, the assignment dropboxes will be open, as will the separate group discussion boards (DBs). Please sign up (on the homepage) for a group.

Please see the Homework Schedule and the General assignment schedule. These columns are on the Schedule on the homepage. The Homework assignments are what your group will complete and turn in for grades. The General assignments are your class work which you should work and study, but will not turn in for grades.

Each week (starting week 3,) there will be questions for you to answer in the Discussion Board for that week's chapter. You MUST participate in each chapter Discussion Board. There will also be a General Discussion Board for each chapter. Any questions you have on the chapter, general assignments or homework should be posted in these General DBs. I will then be able to post answers where everyone can see them (versus you emailing me privately.) Chances are that if you have a question on something, someone else does as well!

Each group should discuss their homework in their individual Group Discussion Boards. Please check in via your Group DB as soon as you join a group so that you can start working together. In all my online classes, students usually study with their groups and discuss class work, even if it's not their homework to be turned in. Discussion with other students is a valuable learning tool: use it! I will check in on your Group DBs from time to time, but if you have questions for me, you need to post them in the General Discussion Board, which I check regularly. If your group has a private question for me, please send it via our class email, which I also check regularly.

PowerPoint slides are posted for your review of each chapter that we are covering. My suggestions for directing your work in each chapter is as follows: (1) read the Ppt slides and follow along in your text for studying exhibits, etc, (2) address the questions at the end of the chapter to quiz your understanding of the material, (3) answer the Discussion Board questions, (4) work your general assignments and homework assignments.

As we get started this week, you should keep a few things in mind: (1) It is your responsibility to check in with your group and be a good group member. Please do so! It will make everyone's class experience better and richer. Your participation will also be graded using input from your group members. (2) Please follow the suggestions I recommended above. It will make the class flow much easier for you, and enable you to get more from the material than if you just try to dive in and work the homework. (3) In a normal face-to-face class, I see students three hours per week. Here, I will spend much more time than that with each of you. However, I'm not a machine! I will not be here 24/7. Please understand this when you post questions or send emails! I plan to be in our class on Tuesdays and Fridays. If my schedule does not allow that in some weeks, I will let you know, via a posted announcement, not to expect me on the regular days.

I look forward to getting to know each of you over the course of the semester and to helping you learn the material in our class. It brings me great pleasure to help my students further their education.

If you have any general questions on how our class will work, you may post them in the Comprehensive Class Information DB. One other important note: Please send any emails to me at our class email account. Emails sent to my university account are very easily buried in the volume of mail I receive there, and I don't want to miss your messages.

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