

Building an Internet Accounting Principles Course

Richard H. Fern
Professor of Accounting
319 Combs Building
Eastern Kentucky University
521 Lancaster Avenue
Richmond, KY 40475
Email: accfern@acs.eku.edu
Phone: 606-622-1087
Fax: 606-622-8071

Section: Teaching and Curriculum

Introduction

In fall 1998, I began offering an online version of an introduction to financial accounting course. The process of developing the course began in January 1998 when the university established a program to help the faculty create Internet courses. Throughout the spring and summer semesters, I worked with fifteen other, non-business faculty in preparing for the online experience. This paper reports some of my original expectations, how I developed the course and the requisite skills to deliver it, and some of the surprises and disappointments experienced over the past twelve months.

Why Offer an Online Course?

Accommodating the growing diversity of students wanting access to courses has become a major challenge to many universities. The Internet is an obvious delivery vehicle due to its widespread use and acceptance. Commercial schools (e.g. the University of Phoenix and Johns University) realized early the potential of in-home or at-work delivery of non-degree and degree programs. Public institutions are now taking advantage of the Internet's education potential.

Exhibit A show some of the more common proposed advantages to teaching online (exhibits will be available at the Northeast AAA Meeting). Online courses offer students much more freedom to pursue studies than is available in a classroom setting. From one perspective, it is a high-tech, self-paced correspondence course with students setting their own study times. Other than assignment and exam deadlines, students have complete freedom in the timing of their studies. This is attractive even for traditional students who may already be on campus but have job or other demands preventing regular class attendance at certain hours. In addition, the use of chat rooms and discussion forums allows online students to interact among themselves as well as with the teachers.

For non-traditional students, the availability of online courses eliminates the need to travel to a campus or be in a particular classroom at a set time each week. With the proper computer configurations at home or at work, parents are able to spend less time commuting and more time with their families.

Assignments can be completed and submitted after the children go to bed.

Students may be more apt to ask questions in forums, chat rooms, or email due to the “anonymity” factor. There is some evidence that students feel more “connected” with their teacher based on the individual attention and feedback given.

Not all of the advantages of Internet delivery of courses accrue to students alone. For the faculty, the option of Internet delivery may attract enough additional students to “make” a course when traditional on-campus enrollment is not sufficient. This is particularly true for those elective courses that we all like to teach but can’t offer very often. Online delivery allows faculty members to stress and demonstrate the use of the technology of modern business. By its nature, students must have, or quickly develop, a minimum amount of technology expertise to participate in an online course.

An unexpected, but pleasantly surprising, benefit was rethinking the general philosophy and methodology of teaching a course in accounting principles. I found myself adhering much more closely to the learning objectives in organizing and presenting the material, making problem assignments, and preparing exams. Absent the opportunity to meet and openly discuss broader and more general business issues, the students and the instructor spent more time on task with the course specifics than might occur in a traditional classroom. Of course, this also reduces our ability to share our “war” stories and those tangential, but interesting, sidebars during the class discussions.

The Student’s View

Our university chose Web Course in a Box (WCB) as our primary authoring tool for online courses. The university’s Distance Learning Committee researched available packages and, based on the criteria of cost and user friendliness, chose WCB. This software, produced at Virginia Commonwealth University, is easy to install and easy to learn. Within one or two hours, most faculty members are able to construct the basic components of a course. Other low cost authoring tools include CyberProf (University of Illinois), Web Worksheet (University of Washington), and Electronic Forum (Arizona State University).

WCB presents course information to students through six modules: Class Info, Announcements, Schedule, Students, Learning Links, and Help/Utilities. Exhibit B shows the menu of WCB modules as seen by students when they access the course home page. The Class Info module contains course basics such as required texts, course objectives, and grading schemes. Instructors can post recent news on the Announcements page. The Schedule module is used for identifying specific dates and assignments for the course. The names of students enrolled in the course and their personal email addresses, available to the instructor and other students in the course, are listed under the Students module. The Help/Utilities area allows students to change their personal course password and create their own home page.

The heart of the course material is contained in the Learning Links module. The discussion forums, lessons, quizzes, and Web links needed to adequately present the course material are created here (Exhibits C and D show examples of forum and lesson menus available to the students). Discussion forums are used for asynchronous communications among class participants. Email, the other primary communication system for the course, is typically restricted to one sender and one receiver (unless forwarded or addressed using a listserv). Discussion forums allow everyone that has been assigned a user name and password to participate in the discussions.

Inside WCB, forums serve as the principal alternative to discussions that typically occur in a classroom. In my course, student participation for each chapter was based on student posting of questions on the forum and also developing an adequate response to another student's question. Exhibit E shows part of the threads for the Chapter 1 Discussion Forum with 10 students enrolled. Here, students posted questions about the text material in context of the particular learning objectives with which they were having difficulty. Another forum was built around the check figures for each chapter's exercise and problem assignments where students could ask questions related to solving particular exercises or problems. Occasionally, other forums were created for student feedback on the progress of the course and extra problem assignments requiring individual student response.

The Lessons feature is the main vehicle for delivering the instructor's personal input to the course. This is a text-based module that acts as the substitute for a class presentation or to show examples (e.g. see Exhibit F - Some Observations on Income Measurement and Accrual Accounting). The Lessons can also contain the URL links to various Web sites used as a course supplement to the text material. Actually, one of the handiest features of WCB is the ease with which URLs can be referenced in various modules. In my course, the Lessons module was also used to show solutions to the problem assignments after students had submitted their work.

The Exercise/Quiz module is used to give multiple choice or true/false quizzes. Quizzes can be built in an interactive mode where students get an immediate evaluation of their answer to each question (see Exhibit G). Since instructors are able to get direct feedback on individual student performance, the quizzes can be used as an evaluation tool for feedback in determining course grades. In my course, they were only used for formative feedback since students took the quizzes solely as practice for the exams. On subsequent taking of the multiple-choice quizzes, the possible answers are rearranged.

Supplemental Software

Like all Web material, WCB text must be in HTML format. An HTML editor is almost a necessity here since the HTML commands are rather awkward to use for any extended time. Text created in a word processor (e.g. WordPerfect) loses its formatting when cut and pasted into the WCB frames. Microsoft's FrontPage was the HTML editor used to create most of the text material for this course. Actually, most of the text material for the course is not on the WCB server but rather on the College of Business server with links to the WCB course material. Like most of the features in WCB, student access to these links can be turned on and off as necessary as the course progresses.

Pleasant and Not-so-Pleasant Surprises from an Online Course

For three months prior to the beginning of the online courses, the University's distance learning information repeatedly made reference to the computer and Internet skills needed to pursue an online course

(see Exhibit H - Prerequisites for Students Enrolling in an Online Course). The class meets for the first time on campus for an orientation to the class and discussion of the considerations peculiar to online learning. Approximately 20% of students attending the first class meeting quickly dropped the course due to perceived technology deficiencies or prior misunderstandings about how an online course is conducted.

In the initial semester, the early weeks of the course were quite enlightening considering the previously advertised skill and software requirements for the students. Some students had trouble mastering the basics of email attachments, while others did not have or know how to use the Excel or WordPerfect software that was required for the course. For example, I received several assignments submitted in LOTUS Symphony or in an unrecognizable format that could not be downloaded with any software on my computer. Several students had new computers and did not know how to use them properly until several weeks into the course; on several occasions, students had to fax their assignments. One month after the course began, one student sent the email shown in Exhibit I. At this point, four chapters of assignments should have been submitted and we were one week away from the first exam.

In any college course, some students just drift away leaving us with no idea as to why. That has also occurred in this course. As the weeks progressed, the number of students submitting their assignments by the due dates declined. Approximately, only 50 percent of the students originally enrolled in the course came to campus to take the first exam. Of those who dropped between the first class meeting and the first exam, some commented that “. . . I am having trouble learning this way . . .” and others indicated that they were too busy with their job to complete the weekly assignments. Others just quit participating. Unlike a classroom setting, a Web-based course format reduces a teacher’s ability to diagnose student difficulties or waning class participation.

As could be expected, we ran into the inevitable technology problems. Despite our best efforts and good responses from WCB’s consultants, some WCB features did not work as predicted. Up to two days before classes began, we believed that students had to be enrolled in the WCB system and given a password

to access the course site. Thus, we could construct our courses using information designed only for our online students. Of the nine online courses offered university-wide in the fall 1998 term, eight course sites were found to be open to anyone. This unexpected development meant that the problem solutions that were intended only for the online students were now potentially available to everyone in the world with Internet access! Fortunately, this did not overly concern my colleagues who were teaching other sections of accounting principles.

Once the courses began, about one-third of my students could not access the quiz or forum areas since WCB would not recognize their assigned user name and password. This helped explain why early participation in the discussion forums was so low. About six weeks into the course, we discovered this WCB glitch preventing forum and quiz access, and this was corrected. Occasionally, either the WCB server or the College server was down for maintenance and students were denied access to those sites. Inevitably, this would be on weekends when many students would be working on the course. This made the reading of the Monday morning email quite exciting.

Our university, like many others, often asks faculty to commit to projects without a commensurate commitment of resources adequate to support them. For example, I can not access my course's chat room at Talkcity.com from campus since, due to heavy Internet traffic on our campus, our computers will not load that Web site. I visit my chat room twice a week from home.

One more WCB "bug" caused some distress. The version we were using had the habit of deleting an existing quiz file while a new quiz was being constructed. Thus, in trying to create quizzes a week ahead of time, one ran the risk of deleting another quiz currently needed by the students. With advice from the WCB administrators, we were able to work around this problem. Those of us new to writing URLs made some basic mistakes. URL links that worked fine from my office would not work from off-campus. After a few weeks, this problem was recognized and mainly eliminated.

Lessons Learned from the First Online Experience

As a text-based online course, this approach to offering accounting principles (or any course, for that matter) has turned out not to be universally appealing. The student attrition has been exceptionally high since, in addition to the traditional drop rates expected in an accounting principles course, the technology expectations created another hurdle to student persistence.

The survivors in the course (those making it past midterm), are primarily the most highly motivated and organized people. Their assignments came in on time beginning the first week of class and this continued throughout the course. They scored the highest grades on the first exam and turned in the best assignments. Throughout the course, they had fewer questions concerning the format or technology of the course. The WCB “bugs” discussed above did not seem to bother them to the same extent as those students who eventually dropped the course. As might be expected, they proved to be the most comfortable in this new type of learning environment.

Approximately one-half of the enrolled students were traditional, on-campus students. Yet, students rarely came by the office for individual, face-to-face help. It seemed as if the impersonal, virtual nature of the course itself discouraged them from making personal contact even though it was readily available. Throughout the course, I routinely saw and spoke to several of the students who either worked or took traditional courses in my building. Yet, only one of them ever came by the office for help. In fact, it was one of the off-campus students who came by most often for additional help!

The discussion forums were set up for students to post questions they might have on the text material or problem assignments. They were also given course credit for participation in these forums. Nevertheless, participation was lacking. Students chose to ask their question directly through email rather than post it on the forum for all to see, even though they got credit for forum participation! This mirrors closely the classroom experience with our students - many students refuse to ask questions in the open and would rather do so in a one-on-one setting. My expectations here were completely misguided. Based on previously reported research, I was expecting that online students might participate more than in a classroom due to the

anonymity of their questions.

Promised Benefits of Online Education

Let's review the promised benefits of online learning. It's hard to argue with the first group (In General) of benefits that are shown in Exhibit A. These are part of the basic structure of Internet education. Online education does make courses more accessible, allows integration of local and distance resources, puts the learning responsibility more directly on the student, and makes multimedia delivery of course material an option. However, a necessary presumption behind these premises is that both students and instructors have the support and training necessary for this technology.

However, most of the benefits to "Effect on Student Behavior" in Exhibit A have not materialized in my courses. For example, the exam grades were high. But, primarily because only the higher achieving, motivated students persisted in the course. Students have not shown increased participation in class "exchanges" nor have they demonstrated more study time than would be expected in the classroom. I do, however, whole-heartedly agree that a students' online experience will make them more inclined to pursue other Internet delivered education, which might translate to "encouraging life-long learning". Email access to the instructor does, in my opinion, make students more willing to ask questions. But, email contact is available in any course format. Increased student communication was not true, however, in the discussion forums.

Are You Thinking About Going Online?

The third part of Exhibit A shows some of the concerns you should have about offering an online course. Your increased commitment of time to development and implementation of each course will easily be a multiple of two, three, or even four. Is your school ready to give you the time and resources necessary to do it right? Does your school have the hardware, software, and Internet access resources needed? Is there full-time, off-hours technical support available when needed? Is your target population of students technologically prepared for online study? If not, is there a means to get them up to speed quickly? Who has

ownership of the material created for the course, the creator or the school? If your motivation for teaching is in the one-to-one and personal interaction with students, are you prepared to substantially let go of that?

I am sufficiently intrigued and challenged by online education to continue offering this course in the future. I am convinced that this form of course delivery has a definite place in modern higher education. There is a distinct segment of our student population that either prefers or, out of necessity, will be required to pursue this form of education. Being new to Web-based instruction, I have not yet begun to tap into online education's multimedia or integrative potentials. I am convinced that I can make this course more interesting, more appealing, and more effective.

Web-based education will never be a total replacement for more traditional delivery formats. It is neither universally appealing nor satisfactory for many students. Perhaps the best use of online resources is as a course supplement to the more traditional lab, classroom, or workplace-based modes of delivery. Combining Internet with other technological forms of delivery offers the best opportunity to exploit the technology while still maintaining the most effective and most rewarding aspects of higher education, which is the sharing and growth that occurs from the personal interaction among students and instructors.