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NOVEL DIMENSIONS: EXPERIENCES AND METHODS OF TEACHING AN ONLINE UNDERGRADUATE BUSINESS INFORMATION SYSTEMS COURSE

Hilary O. Iwu
Department of Information Systems
Morehead State University
Morehead, KY 40351

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Introduction

Many people define online teaching and learning in various ways. Bandy & Bandy define it as a flexible approach to learning; a teaching that creates an individualized, highly effective environment that enhances and personalizes the learning atmosphere; or the use of Internet technology to help promote online class interaction and collaboration to help achieve learning outcomes.

In this paper, an online education is defined as a teaching and learning process where a majority of instruction occurs when the learner and instructor meet virtually, using Blackboard 6.1 platform. This is done to provide the highest quality of instruction and academic programs to a wider audience through Internet technology (Morehead State University, 2002).

Purpose of Study

The purpose of this study is to discuss the teaching experiences and techniques utilized in my online courses at Morehead State University. The findings of a survey conducted in these classes regarding the benefits and disadvantages of online learning will be discussed also. This study is the result of a few years of experiences in teaching online courses in Computers for Learning and Business Communication utilizing Online/Internet, ITV, and online/face-to-face approaches.

Review of Literature

Online teaching has two approaches: Synchronous (happening at the same time) and asynchronous (Bandy and Bandy, 2004). Synchronous online learning systems are highly structured learning environments done in “real time.” Synchronous teaching takes place each time an instructor utilizes online technology in a face-to-face classroom. The tools for the synchronous learning are White Board, NetMeeting, chartroom or instant messaging, videoconferencing, teleconferencing, and Blackboard.

Asynchronous online learning is the learning that happens at different times and is it more flexible than synchronous learning. Because asynchronous learning is available 24/7, students gain access to the course at their own time and from their own location. The two-way communication is also slowed down, allowing learners to reflect on and interact with new information before responding to it. The tools available for this learning are: email, virtual classroom, group pages, listservs, threaded discussion, weblogs, e-text, e-zines, video streaming, audio clips, Internet links, forums, and troubleshooting in discussion board.

When Developing A Partial or Complete Online Course, Certain Factors Need to be Considered. These factors include the following**:**

- Class size may be smaller than a traditional course due to the volume of online communication that must be processed by the instructor.
- Computing skills are a prerequisite to an online course, not a by-product of it.
- Technical limitations and issues might introduce problems to be overcome.
- Communications such as chat and discussions can be unfocused unless the instructor exercises a strong guiding influence on the conversation with prompts, cues, and suggestions.
- Adequate and timely feedback to students is critical.
- The Individualized nature of instruction suits individual student needs.
- Deep learning encouraged by thorough question design and links to thought-provoking sources takes place.
- Student autonomy is encouraged since students are in charge of their own learning.
- The demographics of students in online courses and in traditional courses are usually different. Online courses generally are more diverse and often comprise older, non-degree-seeking, part-time students (New York University, 2002).

Technology Requirements. Students taking an online course at Morehead State University need the following technology listed in Table 1.

Table 1 **Technology Requirements**

IBM or IBM PC Pentium II or greater processor Windows 95, 98/NT4 Or Macintosh Power PC 68040 or greater processor, plus 16 Megabytes of RAM (32 Megabytes recommended) 60 Megabytes of free hard disk space CD/DVD ROM drives	28-8 baud modem (56K or higher recommended) Sound card and speakers Version 4.8 or higher Netscape Navigator or Internet Explorer Internet connection with an ISP Email system (MSU Webmail system recommended) Appropriate application software MSWord, Excel, Access, PowerPoint, SamXP

Resources

People. Vast resources are available to us in an online class at Morehead State University. In the CIS 101 classes for example, each instructor uses the help of a teaching assistant in the classroom. Lab assistants monitor the labs as well as help the students during lab hours. The University's learning lab also helps struggling students achieve academic success.

Furthermore, there is a director of CIS 101 classes, who herself is a faculty member that plans and coordinates the activities of this course of over 1,000 students. The Distance Learning staff also renders support to faculty and students. Department Chair, the Dean as well as the current textbook and textbook publishers serve as additional resources.

Class size and teams. Generally, online classes are small classes that range from 18-27 students. During the second week of each semester, I divide the class into teams of three each, thereby creating 8 or 9 teams. Students then start to email and chat with team members as they complete class and group assignments. Studies reveal that, while some students do not like Internet course team arrangement, a majority favors it. Those who do not like it argue that it is difficult to reach everyone at the same time. This is because online learning is asynchronous.

Syllabus. Several syllabi in the department, including those of Computers for Learning and Business Communication, are standardized. The standardized syllabus is usually created by a committee and approved by the department. Each faculty then has the final say in the logical arrangement of the contents.

Ethics Statement. Genuine student collaboration on homework, class assignments, or tests, should be encouraged because this promotes broader learning objectives. However, plagiarism and other forms of cheating should be avoided. The syllabus specifies that any form of cheating such as copying, sharing files, submitting the work of another as the student's is not permitted and givers or receivers will fail the assignment or class.

Because of the importance of online education, some of its benefits and disadvantages need to be emphasized. Bandy & Bandy, Morris, and Naporano (2004); Boettcher, (2001); and Boser & Boser (2003), listed several benefits and disadvantages of online education, as seen in Tables 2 and 3.

Table 2. Effects of Online Teaching on Students

Benefits for students include:	**Disadvantages for students include:**
1. **A**ccess to new learners unable to attend traditional classes 2. More flexibility in timing and location of study 3. Less (or no) travel time to go to college 4. More availability of courses (global market) 5. Success in building self-confidence and responsibility 6. Interaction with a geographically diverse group of learners	1. Less interaction with teacher than with small class sizes 2. Less social interaction with other students 3. Encountering difficulty in communicating in writing 4. Technology problems that can be very frustrating and may inhibit learning 5. The difficulty of team work due to asynchronous learning.

Table3. Effects on Teachers

Benefits for teachers	**Disadvantages for teachers**
1. Improves face-to-face teaching 2. Promotes non-immediate cost-effectiveness 3. Once materials are developed, future delivery is easier 4. Can deliver courses anywhere, anytime (work from home) 5. Can interact with a geographically diverse	1. Very time-consuming to develop materials initially 2. Less social interaction with students 3. Less social interaction with peers (if working at a distance) 4. Can be very time consuming to interact with individual students

group of learners 6. Can interact more effectively with each student than in a large class 7. May rejuvenate and motivate teachers through innovation 8. There is more immediacy than traditional books	5. Technology problems can cause frustration and may inhibit teaching 6. May be difficult to convert some effective learning strategies to the online environment 7. Assessment becomes a major problem if class is large

Methodology

In an attempt to accomplish a successful online teaching, various teaching strategies are used to achieve the goal. Following are some of these techniques.

1. **Lectures and assignments** are conducted on the Internet utilizing Blackboard 6.1 technology.
2. Students need university ID and Password to enroll in Blackboard.
3. As soon as the course syllabus for the semester is uploaded the week preceding the starting of classes, the following steps as listed in Table 4 are taken.

Table 4. **Techniques**

Actions	**Reasons**
Before school starts:	
• Make the course unavailable	• Prevent unauthorized enrollment.
• Create enrollment password (different from students' university ID & password).	• Ensure enrollment of class members only.
• Email enrollment password to all officially registered students.	• Prevent enrollment by non-class members.
• Make course available the day class begins	• So only class members may enroll.
• Tell them to enroll within one day.	• So you may change the password.
• After a day change the password.	• So their unregistered friends do not join the class. (They reveal the password to their friends.)
• Give the remaining class members their own password individually, making sure to change the password each time.	• Prevent revealing password to their friends.
• At the end of the first week of classes, ask all students who are not officially registered to see the registrar.	• Retain only legitimate students whose names are in the official university course register.

4**. Email versus Digital Dropbox.** After enrollment, students are all very anxious to use the email system. I give them the opportunity to gain some email experience by asking them to email me. After that, assignments are to be submitted in digital drop box only. This economizes space because the dropbox is never full, but your email might be.

5**. Assignments.** Students are encouraged to send their assignments not by email, but by the digital dropbox. The following digital dropbox policy is posted on announcements:

6. DGITAL DROPBOX POLICY
Assignments are to be submitted in digital dropbox on due date. To submit in dropbox: First, type the answer to the assignments and save it in MS Word. Then, login to Blackboard and click Student Tools, Digital Drop Box, and Send file. Follow the prompts to specify the job name, browse, and search for the job in your A or hard drive and open it. Then, submit and ok it.

6. Emailing versus Troubleshooting. Since physical interaction is almost entirely non-existent in the online world, students in an Internet class must find a way to speak with the Instructor/classmates. Again, I ask the students to not email me, except for confidential matters. All questions to the Instructor must be posted in Troubleshooting in Discussion Board on Blackboard. I normally add this Troubleshooting forum and direct the students to it. I then develop a troubleshooting policy for the students.

7. Troubleshooting Policy. Please post ALL the questions you have for the Instructor on this site. Do not email any questions to Instructor, unless they are confidential. You may also post questions for your classmates on this site. Students are encouraged to go to this Troubleshooting site several times a day to answer any available questions or post some of theirs.

8. Policies for Posting Jobs in Troubleshooting in Discussion Board
1. The questions that you post here must be related to the class assignments.
2. You must attempt the assignments first. If you really run into difficulty, you may pose your questions.
3. The Instructor will respond.
4. Any class members who know the answers to the questions can also respond.
5. This site should not be used as a medium to have others do your assignment for you, without you trying it first.
6. It should not be used to discuss matters unrelated to the class.
7. Use the site courteously, respecting each other.
8. Do not abuse the site in any form whatsoever.

Assessment

In the CIS101 class, for example, four exams covering multiple choice, true-false, fill in, essay, and hands-on application are given. The specific tools assessed are: Concepts including Windows and Internet, MS Word, Spreadsheet: Excel, Database Management: Access, and PowerPoint. Projects and cases are incorporated in each area. The final exam (test 4) is comprehensive.

Students take tests in both Blackboard and Sam (Skills Assessment Manager) programs. Tests set in Blackboard are automatically graded and recorded in Blackboard. Students then check their grades in Blackboard. Tests taken in Sam are also automatically graded

and recorded in Sam, but not in Blackboard. Instructor can then make those grades available in Blackboard for student viewing.

Findings

In the 2003-2004 academic year Internet classes, an open-ended response study was conducted. Forty-two students were surveyed and 95% response by 40 students was received and analyzed. The results are shown in Tables 5 and 6.

Table 5. **What I liked most about the Internet Course**

Likes		Likes	
No attendance to class	98%	Forces you to be independent	67%
Work at my own rate	91	Digital Drop box is great	66
No commuting time or parking problems	88	Better my computer skills	45
Flexibility	82	Syllabus detailed (planned into the future)	44
Saves time	77	Must be disciplined	34
I like the discussion board	68	Learn new vocabulary	15%

Table 6 deals with what the students disliked about the Internet courses.

Table 6. **Things I Disliked About the Internet Course**

Dislikes		Dislikes	
Lack of interaction with the professor	95%	Classroom environment better	44%
Lack of interaction with peers	92	Time consuming (more complicated especially if new user)	30
Groups difficult to contact	65	Dialup Internet is terrible	21
Lack of immediate feedback on assignments	56	Must check Bb constantly	10
Internet downtime	55	Costs more than regular class	6%
Lack of security of confidential information	38%		

Conclusions and Recommendations

Teaching and learning utilizing an Internet delivery system is the best thing to happen to civilization since the invention of electricity or the telephone. To realize the full benefits of Internet learning, students taking an online class must be willing and able to accept the responsibilities that online education demands.

Instructors should prepare a detailed syllabus of the online coursework into the future, respond to students' phone calls or emails, and provide them with immediate feedback regarding assignments and tests. However, grading takes time, especially with large classes, and students should know that. Keep them informed of the lag time. It is necessary to support students who have lower levels of technical competencies. Offer words of encouragement and personalize communication with each student.

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