

## **GETTING AN "A" WITHOUT ATTENDING CLASS: A CASE STUDY IN THE BENEFITS OF A LECTURE ENHANCED WEB COURSE**

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### **ABSTRACT**

Internet technology is proving to be a superior system for the delivery of interactive exercises for students in Web based correspondence courses. When the syllabus of a Web based correspondence course is merged into the traditional classroom, the result is a lecture enhanced Web course. Busy commuter students like a strongly focused class that can be successfully completed without attending class and by doing all the required assignments on-line. Full time students like the opportunity to attend class and to participate in the traditional learning experience.

### **INTRODUCTION**

Professors always pride themselves on bringing unique value to their courses. They get a nervous twinge when a student manages to earn an A grade without attending class. The question of getting an A without attending class reaches straight into issues about assessment and the basic institution of credit-for-contact hours. When courses are organized around seminars and labs then it is obvious that the student gains value from class attendance. If there are weekly tests and interesting multi-media presentations then the value of regular attendance is enhanced. Attendance has less obvious value when a course is built around standard textbooks, library assignments, and long lectures to large audiences.

At the other end of the spectrum there are university courses that are designed to deliver education without class attendance, e.g., correspondence courses. Classic correspondence courses and independent

study programs have been part of most universities for many years. When a professor designs an independent study or a correspondence course the primary goal is to create a syllabus in which a student can master the same material as a regular student and get an A without attending class.

Although study after study has shown no significant difference between the academic performance of students in regular classrooms and students in distance education programs (Russell 1998), there is a general belief that independent study and correspondence courses are inferior delivery systems compared to the conventional classroom. Because research suggests that students need a high level of maturity and motivation to be successful in an independent study program (Miller, Smith and Tilstone 1998), there is a potential conclusion that a higher quality of the students compensates for an inferior delivery system.

The Web allows correspondence students, who were previously forced to work in isolation, to work together on projects and to collaborate on assignments. The Web also gives correspondence students the ability to use computer assisted learning programs and to submit exercises with instant feedback on their performance. Computer mediation gives students homework tailored to their individual needs and performance levels. Students can use e-mail to ask immediate questions and seek instant help on problems and assignments. Multimedia presentations that used to be restricted to classroom audiences are now available anytime, anywhere on the personal com-

puter. The interactive revolution that the Web has brought to homework and home study exercises in correspondence courses is changing the way traditional courses are taught (Mitchell 1997). It can be argued that the Internet is providing a superior system for delivering exercises and homework assignments.

The convergence between the regular classroom and the correspondence course results in a lecture enhanced Web class. The recipe for a lecture enhanced Web class is to take one Web-only, independent study course, add conventional lectures and sprinkle liberally with inspiring and motivating classroom activities. A pilot project using a lecture enhanced Web course on the Principles of Marketing has proven popular and in the future it may become part of the regular diet at the author's institution.

#### **The Lecture Enhanced Web Class**

A lecture enhanced Web class meets in a regular classroom with conventional lectures and classroom activities, but all the homework, assignments, and exercises are done on the World Wide Web.

Web assignments and exercises have several unique features that make them powerful teaching tools. The first feature is interactivity. Interactive exercises are particularly powerful for low level learning objectives where rehearsal is important and multiple choice practice questions can be used. For example, students who are doing practice problems on the Web receive immediate feedback as to their performance and the practice problems can be automatically tailored to the performance of the individual student.

A second feature is the record keeping ability of the computer that acts as the instructor's Web server. The faculty member and

the student can easily review their progress and performance on a day-to-day basis.

A third feature of the Web assisted class is the massive amount of information that can be put on-line to help students with detailed explanations or special questions. For example, the faculty member can publish lecture notes, specific examples and explanations onto the server for on-line viewing.

A fourth feature is that the specific levels of mastery can be programmed into the assignments. That is to say, the instructor can decide in advance that the homework must be correct before the computer will submit it as a completed assignment.

The fifth and most revolutionary feature is that students can e-mail questions or comments to other students or the faculty member at anytime. The usefulness of e-mail as a learning tool has been well documented and with a Web assisted class student participation is not limited to the classroom or to office hours.

The motivational and inspirational benefits of the traditional classroom do much to make it a superior system for delivering complex ideas and concepts. The interactive nature of the Web makes it a superior system for delivering homework exercises and assignments out of class. Combining the benefits of both systems results in an improved learning experience.

#### **Types of Interactive Assignments Used**

The Web based exercises over and above simple e-mail assignments used in this pilot study were as follows:

1. The students had blocks of "Jeopardy" style matching questions for every chapter and these were required to be done and done correctly before the computer would let the student submit the assignment.

2. Banks of multiple choice question for the students to practice were available. Students would get immediate feedback on the correctness of their answers and participation was optional.
3. Essay questions were asked on the Web and students could submit trial answers which they type into the Web page and submit. The computer would return hints as to what should be included in a good answer. Participation in practicing essay answers was optional.
4. Students were required to participate in some of the many controlled discussion topics available on the class Web site and their participation was like a conventional newsgroup discussion found on the Web.
5. Students were required to find Web sites that were representatives of very good and very bad marketing practices and to write online reports about their findings.
6. Students were given the opportunity to communicate their reactions to specific lectures using e-mail or guestbooks provided with the instructor's notes and slide presentations.

#### **Results of Student Feedback.**

All the students filled in a questionnaire in class after the final exam and 31 filled in the on-line questionnaire at the end of the course. Students would either attend class in a very regular manner or would scarcely attend at all. It was satisfying to the professor that students who attended class did slightly better on the exams than students who did not attend class although the difference was not statistically significant.

The surprising result was found when students were asked if they found the lectures useful for what they wanted out of the course. Approximately half of the students did not think they needed the lectures. Students who claimed they did not need the lectures did slightly better, although not significantly better ( $p < 0.05$ ), on exams than students who claimed they needed the lectures.

The results of the survey taken after the final exam also indicated that some students regretted not attending more regularly. That is to say, approximately half the students who actually attended class on a regular basis and half the students who did not attend class on a regular basis thought they needed the lectures.

Although class attendance was not significantly related to any performance measures, it was found that students who practiced the Web site exercises did significantly better on those exam questions than those who did not practice. This result is a simple confirmation of the old saying "practice makes perfect." There is, of course, nothing here to test the assumption that Web based exercises are superior learning tools to conventional pen and paper exercises. The advantages of using Web based materials lie elsewhere.

#### **CONCLUSION**

The Web assisted class combines the advantages of the regular classroom with advantages of the Web for delivering interactive homework and home study assignments. It might be described as a Web only correspondence course with the opportunity to go to class and take regular lectures. The Web assisted class gives students the opportunity to skip lectures and follow an independent study format whenever they find

conflicts with their work or family schedules. Students who wish to work independently have the benefit of attending lectures when they need special assistance or in depth explanations. All students must interact on the Internet and work collaboratively on Web based discussion groups and search assignments. No significant differences were found in the grades of the students who attended class and those who did not attend class.

The Web assisted format places a heavy emphasis on interactive and computer mediated assignments submitted over the Internet. The computer-assisted instruction is particularly effective for learning definitions and memorizing basic concepts. The computer based exercises reduce the time spend in grading homework and the amount of class time devoted to definitions and basic concepts.

Students use e-mail to ask questions outside of class. The amount of time that the Professor can spend answering e-mail can be excessive and tends to grow if students find a responsive instructor. Finding the balance between answering questions on e-mail and saving them for an answer in-class is difficult.

In the future the interactive nature of the Web for hosting simulations and business games will be exploited more completely. Simulations provide another opportunity for students to interact and form relationships outside of class.

The current course did not have sufficient links to materials that students may have forgotten from their prerequisite courses. The number of links to a student's earlier course materials and exercises will grow in the future. The opportunity for on-line review

of materials covered in previous courses is a strategic component in the process of life-long learning.

The Web assisted class is not for all courses or teaching objectives. The Web assisted format is not appropriate for every type of class or teaching objective. There are learning objectives that can be accomplished better with different teaching technologies. The Web based design of the Marketing course described above lends itself to large introductory class that contains a high proportion of students learning a topic outside their major. For example, virtually all Accounting, Management, Information Systems, and Finance majors are required to complete a Principles of Marketing class.

#### REFERENCES

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