

TEACHING EMERGENCY MANAGEMENT WITH BLACKBOARD: A PERSONAL CASE STUDY

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INTRODUCTION

The University of Richmond and Emergency Services Management

The Emergency Services Management degree program at the University of Richmond is a multidisciplinary public safety degree program with a focus on integrated and comprehensive emergency management located in the School of Continuing Studies. The School of Continuing Studies is a primarily adult education school, and is one of the five Schools of the University (the others are Arts and Sciences, the Jepson School of Leadership, the E. Claiborne Robbins School of Business, and the T. C. Williams Law School). The University of Richmond is a liberal arts university, and has been ranked as the best regional university in the South for six consecutive years in the *U. S. News and World Report* annual evaluations.

The program started in August 1996 and graduated its first students with a Bachelor's in Applied Studies in Emergency Services Management in June 1999. Currently the program has 31 declared majors. The program is directed by one full time faculty member, with an adjunct faculty of six.

Teaching On-Line in Emergency Services Management

To increase the flexibility of delivery for students who work shifts and to increase our catchment area, the decision to offer on-line instruction was made in 1998. Of the 13 courses offered in the major, four were initially offered by a combination of on-line instruction with Saturday on-campus sessions, in a ratio of 15 on-line to 2 on-campus sessions in a three semester hour course. Initial teaching technology was very simple, an Internet page for assignments, objectives, and supporting contextual material, and a listserv for the distribution of e-mail based discussion. We recognized at the time that this was a very limited solution, but it provided the opportunity to experiment with teaching methods and to gain operational experience at a very inexpensive cost.

In 1999 we transitioned to the use of WebBoard, a web bulletin board system that allowed discussion to be conducted in the threaded discussion format. WebBoard was effective at what it did (although the chat capability proved unusable), but the dependence on a single method of delivery and the inability to conduct exercises effectively limited its use. In retrospect this growth through two approaches was very beneficial in identifying what was really important

about on-line teaching and in bringing our students along in a step-by-step progression to better and more sophisticated teaching technology.

Instructor Experience

As an instructor I am now teaching my eleventh on-line delivery (my second on Blackboard). In addition, I have taken seven graduate courses on-line. I have had experience, either teaching or learning, in four delivery systems. My background also includes experience as a student in at least 50 traditional paper based correspondence courses. My personal experience suggests that distance delivery is a viable way to learn a wide variety of material from professional skills to graduate education in emergency management.

BLACKBOARD

In the search for an easy to use standard teaching platform, the University of Richmond's On-Line Teaching and Learning Committee examined a number of possible softwares. Although faculty members had experience in the use of both Web CT and WebBoard, the consensus, based on a combination of experience and vendor demonstrations, was to adopt Blackboard. Currently, the University is in the process of doing the training and technical work needed to roll out Blackboard as a teaching platform in the Fall Semester.

However, Blackboard also has an on-line site available for use by instructors to teach courses (at <http://www.blackboard.com>), either on a limited basis at no charge or with full capabilities and larger capacity for a \$100.00 per year fee. Using this site, the School of Continuing Studies delivered a pilot offering of G247 *Decision Making in a Crisis*, a Federal Emergency Management Agency field delivery course, in April 2000, and is currently delivering ESM 307 Managing Emergency Operations as an upper division undergraduate course.

Blackboard is a multi-feature teaching platform designed to support a variety of instructional methods in an Internet setting. The use of a standard opening page makes it easy for students to learn how to use the platform, and reduces the issue of technology versus content to a minimal concern. Key features of Blackboard, based on my experience to date, are shown in Table 1.

LESSONS LEARNED

The following are my personal observations based on my on-line teaching experiences. In many cases they are based on things I have done less than well. They are unsupported by anything other than a practitioner's perspective.

Table 1. Features of Blackboard

Features	Blackboard
posted documents	primary means of providing instructional material-text can be typed or cut and pasted in to a documents file or provided as an attachment or a link
announcements	yes—are posted on the initial page students access
threaded discussion	yes—in an area separate from course documents
testing	yes—with automated grading for multiple choice and short answer
grading	gradebook students can access—allows manual entry of grades and automatically enters test results
allows incorporation of links	yes—there is a specific link area
chat capability	yes—with an excellent whiteboard that simulates a classroom blackboard
e-mail capability	yes—also has a student drop box in which students can leave assigned work as electronic files
spell checking	no
editing order of materials	yes—but is a one entry by one entry system—to reorder an entire folder you have to reorder each document individually
ability to reveal and hide material	yes
ease of learning and use	very easy to learn—but requires a lot of thought to make your presentations effective
interface issues	there are some-appear to be browser dependent

Note: Comments apply to the version of Blackboard currently available (23 June 2000) at Blackboard's Internet site (<http://www.Blackboard.com>).

This is not a simple or easy way to teach. Neither is it a way to save time. And it does not instantly make an instructor a superstar. Poor or lazy classroom instructors are not saved by Internet technology; instead they are revealed as truly awful.

Fifteen students in a well designed class that offers a good degree of interaction is a large number of students and a tremendous amount of intense work in this environment. More than 20 would take over your entire life. I cannot imagine how anyone is teaching more than 100 (I have heard this method touted as a way to teach 600 students in one class) and doing anything other than just dumping information and testing on it.

Translation of course material from the classroom environment to on-line is not a trivial undertaking. If all you have is reams of handwritten lecture notes, your task is to convert

everything to word for word text in an electronic format, and then insert it in the site. My personal rule of thumb is that 1 hour of instruction takes anywhere from 2 to 8 hours of work to translate it to the site. The length of effort required appears to depend entirely on the selected teaching method and the complexity of the course session. Relationships between material must be thought out carefully and the site structured to make these relationships clear to the users. In the classroom we can achieve that quickly with voice tempo and inflection, expression, gesticulation, and quickly drawn diagrams on the board. On-line the perfection of our thought is only obvious if we spend the extra time to make it so.

This is not a format for lecture. There are some things you can do to replicate the lecture environment, but simply typing out text for students to read on the screen achieves the same level of compliance as assigning them reading material. My experience is that an approach based on Socratic Dialog appears to work well; the discussion thread mechanism enhances that.

Every instruction must be considered carefully for the written message. Students working asynchronously depend on information posted on the site for their understanding of course requirements. Any ambiguity will confuse them and result in the course not working as desired. Even reproducing the instructor's manual word for word does not eliminate the possibility of confusion; the on-line instructor must think very much in terms of step one followed by step two.

Proof and test everything before you use it on students. The time to find out that a feature does not work the way you thought it did is not in the middle of a chat presentation.

What is obvious to you will confuse at least a third of the class. For the first several sessions you are well served if you insert detailed instructions on the level of "use the orange ASSIGNEENTS button to..." every time you want the students to do anything.

Asynchronous delivery using discussion threads is not self-teaching. Instructors must regularly read the student postings and respond to them using questions, praise for good responses, and examples to reinforce learning. Regular daily review of material is necessary, even if work is scheduled on a weekly basis. This includes Saturday and Sunday, because these are times students post. The Internet environment creates expectations of instant response; if students post material and do not receive feedback within a day they start to feel the instructor is not interested in their work.

Use of chat requires training, both for the instructor and the students. Effective chat sessions are moderated, with the moderator controlling the flow of the dialog, and participants not conversing until they are cleared to do so. Delivery of lecture material by chat requires mastery of the techniques of preparing chunked material, cut and paste, and developing a delivery rhythm. Neither of these are intuitive skills.

Both discussion threads and chat are much slower than normal conversation. We speak at 200 words a minute. I type at 20 words a minute. As a simplistic criteria, for me to convey the same material I would speak in writing takes ten times as long. Expect that a 1 hour chat session will cover about 20 to 30 minutes of classroom material and discussion, and that delivery by

threaded discussion of a 2 hour 45 minute class to 11-12 students requires about 7 to 8 hours of teaching time a week.

Tests in instructor manuals typically do not come with explanatory material beyond an answer key. Blackboard includes an option to provide reinforcement to correct answers and explanatory material for wrong answers-feedback significantly increases the learning value of the tests. However, test construction is the slowest and most demanding of the activities in this program. Even using a test I wrote, with electronic files available, and no need to check material to verify my feedback, the fastest I can work is six questions an hour.

Because the written word replaces both the oral and visual inputs, your writing is critical to the success of the course. Students lack the visual and tonal clues that the classroom provides; instructors have to use extra care to avoid negative effects. What you think is funny will almost certainly be taken as demeaning or offensive by someone.

Simple is important. Not every student has an 800 MHz computer and an ISDN or T1 line. Even in Richmond, there are people connecting at 19K rather than 57K. The more complex the material is, the more mouse clicks needed to reach material and assignments, and the more graphically intense the teaching platform is, the slower it is. With state of the art equipment this does not have a negative impact. With old equipment and a slow connection it frustrates students and makes delivery very time consuming.

AND WHAT DO THE CONSUMERS (STUDENTS) SAY ABOUT IT?

The following paraphrased comments from students (in person and in evaluations) may be of use in thinking about on-line teaching in general:

More work than a classroom class...

You don't have to worry about cheating—I couldn't pay anyone enough to do this.

I really like that I can think about the questions rather than just responding off the top of my head.

I am the guy who sits in the back row and never opens his mouth in a classroom—this course forced me to be involved and interact.

More and better instructor involvement than in a classroom.

Some really good discussions...

I learned a tremendous amount.

With my shift schedule in my agency this was the only way I could do the class.