Enhanced Multi-Faceted Teaching Methods

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Abstract

This paper is a case study on how a combination of teaching/learning technologies and methods can be used for teaching graduate and undergraduate students. A matrix will be presented on how many technologies can be blended with a collaborative teaching style. Teaching in virtually any college or university now means having a broad array of resources to enhance the teaching/learning process for faculty and students alike.

Introduction

Teaching in virtually any college or university now means having a broad array of resources to enhance the teaching/learning process for faculty and students alike. This paper is an individual case study on just how significantly teaching/learning enhancements can play a major role in the classroom experience on both the graduate and under graduate levels. Encouraged by my Dean at Adelphi University School of Business, to share what I was doing in the classroom, a cursory review lead to a substantial list of methods, teaching philosophies, computer assisted activities & testing, and a host of support services often not put to full use where available.

The paper will provide a matrix chart of both "soft" technologies and "hardware dependant" methods actually used in teaching undergraduate and graduate students (and the differences between the two groups). Further, each item will be defined, described, and discussed with their relative merits as well as some thoughts on "overkill" that makes some methods not worth the effort. While the nature of this paper does not lend itself to statistical analysis, future research using this paper as a model is planned. It is for that reason that comments and suggestions would be greatly valued. Please send comments and suggestions to payette@adelphi.edu.

For a thorough discussion on collaborative learning please consult the following website which is a part of the office of Instructional Consultation at the University of California at Santa Barbara http://www.id.ucsb.edu/IC/resouces/collab-L/difference.html.

Definition Of Terms

Collaborative Learning: A method of teaching where the faculty member and students work together in a manner that emphasizes open dialogue, student teams, flexibility in …, use of technology based instructional methods, with an emphasis on achieving learning objectives and the enhancement of critical thinking. (Gokhale, 2003)

Traditional Learning: The instructor centered lecture method with little or no use of information technologies or team collaboration.

Hard Technology Methods: Technologies that are PC dependent and/or are Internet based

•   Email
•   Streaming Video
•   Web Access
•   Smart Classrooms
•   Hybrid Classrooms

- Blackboard Program
- Power Point
- Publisher Aids

Soft Technology Methods: Non Information technology dependent

- Laser Pointer
- Essay examinations
- Attendance
- Research Projects
- Lecture Series
- Student Teams
- Cohort Model
- Audio Systems with Cell Phone

The Use Of Multifaceted Teaching Methodologies

The following chart summarizes, for the purposes of this case study, some of the teaching methodologies used in teaching undergraduate and graduate business courses at Adelphi University by Professor Dennis L. Payette, during the period of January 2001 to the present. This paper is intended to be illustrative and not comprehensive with respect to the global universe of teaching techniques and related technologies. It can simply serve as one experience, which is positively oriented, towards the use of many teaching enhancements available today. The paper presumes the reader has a fundamental knowledge base with respect to traditional higher education teaching methods and is reasonably current on basic information technology. It will be left to others to determine the ultimate efficacy of various teaching methods and aids.

A discussion of each item in the chart immediately follows.

Teaching Technologies and Techniques with Level of Use and Value of Use

Each of the items in the preceding chart are described and discussed with respect to the authors use in the classroom in the following sections.

Smart Classrooms

Adelphi currently has twenty "smart classrooms" which are equipped with:

- A projector
- P C
- VHS/Recording Equipment
- Cable TV
- Document Camera
- Internet Connectivity
- External data/power ports

Each of these classrooms has a central lectern and central panel for the faculty member or presenter. Most of the smart classrooms, which include several similarly equipped rooms in the School of Business, know as "case rooms". Again in most of these rooms each seat has a phone jack and power plug for laptop connection. In teaching elements of globalization it can be quite effective to demonstrate how easy it is to be linked to the world via the Internet. Faculty new to these rooms is urged to thoroughly familiarize themselves with the control panel and hardware. For example, convenient instructions taped to the lectern next to the control panel explain how to activate and deactivate all of the pieces of hardware, screens, lights, projectors, etc. Being severely annoyed and embarrassed the first time I went to use the PC with a CDROM to project some Power Points. I simply couldn't get the whole mess to work even though the directions had been scrupulously followed. Revert to plan B with backup materials previously printed. After finding the right person to determine why it wouldn't work it was learned that one had to push the power buttons twice and to do the same with the projector and then wait for the countdown before the projector could be activated. Lesson learned, practice, practice, practice.

Teaching Technologies and Techniques with Level of Use and Value of Use[1]

Technologies/ Techniques	Graduate		Undergraduate	
	Level of Use[2]	Value of Use[3]	Level of Use[2]	Value of Use[3]
Hard Technologies[4]				
Email	4	3	4	3
Streaming Video	2	1	2	1
Web Access	4	2	4	3
Smart Classrooms	4	3	4	3
Hybrid Classrooms	1	4	1	4
Blackboard Program	4	2	4	3
Power Point	4	2	4	2
Publisher Aids	3	1	4	3
Soft Technologies[5]				
Laser Pointer	4	2	4	2
Essay Examinations	3	3	4	3
Attendance	4	2	4	2
Research Projects	2	3	1	4
Lecture Series	2	3	2	4
Student Teams	4	3	4	3
Cohort Model	3	3	1	4
Audio/Cell phone	2	1	1	4

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[1] This Chart Presumes use of collaborative teaching style
[2] Level of Use:
1. Never
2. Occasionally
3. Frequently
4. Always
5. Intend to use

[3] Value of Use:
1. Worth While
2. Good
3. Very Good
4. Have Not Used

[4] Technologies that are PC dependent and/or are Internet based
[5] Non Information technology dependent

Hybrid Classrooms

Hybrid classrooms are a variation of the smart classrooms but without computer equipment. You must bring a laptop in order to connect to the projector for whatever type of presentation you plan on making. Rumor has it that you can, without a laptop, transfer Power Point files "Directly to the IP which has been assigned to the actual projector in the Hybrid Room." (Faculty Handbook p.25) When I have to I'll try this out but not before.

Email

Almost twenty years ago the author gave a presentation at the national EDUCOM conference at the University of Michigan on the use of Email in the classroom. (Unpublished paper). As a full time administrator my teaching was limited to one or two courses per year usually with a last minute assignment for a class not staffed for whatever reason. One such Principles of Management class had sixty students and Email at that time was limited to a mainframe based closed system. Looking for some way to enhance my class and not waste time on changes in schedule, exams, etc., I met with the chief information officer to request assistance. The compiler center agreed to provide each of my students with an email account and I proceeded to write a brief "how to" manual and included the use of email a required element of the class. Then the class met in one of the labs where the basic of using the system was demonstrated. At first I justified the use of this time as a skill most likely to be encountered in the business community.

It soon became clear that email, which at that time was thought to be a dehumanizing experience was in fact just the opposite. It is now difficult to conceive of teaching any class without email access to all students, through Blackboard or similar systems the use of web based email is extremely simple and effective.

Blackboard

Any software program or device, mechanical or electronic that has a five hundred page manual scares me. When exploring University on-line sites for basic information on Blackboard (and other resources two manuals were available, one at thirty five pages and the other at five hundred pages.) Needless to say my first experience with BLACKBOARD several years ago was reasonable enough and a few of the features were useful (my first criterion) and relatively simple to use and figure out. First, having registered for an account on BLACKBOARD it was easy to import my course syllabus for a course about to be taught. Once having registered the course on BLACKBOARD it was a delight to find an automatic link with registration data and to have a list of every registered student's email address. While I handed out a hard copy of the syllabus during the first class it was helpful to inform students that the syllabus was in their BLACKBOARD account. Adding and deleting materials ranges from simple file transfer to fairly complex uploading from CD's and other source locations. I must confess that I still haven't mastered the "architecture" of folders and files to the extent I would like but I expect to do so in time with greater use.

There is so much richness to the Blackboard program that it will take quite some time to fully grasp the full scope of the program. So, in the mean time I follow a basic rule: if it is useful for what I need and reasonably simple to master in a short period of time chances are I will use it. The other criterion for my use is ease of importing information.

The bottom line is, however, I wouldn't dream of teaching any course without it. The new faculty handbook (2003-2004) describes the program as "Blackboard 5 is a comprehensive and flexible e-learning software platform that delivers a course management system."

For additional information see www.Blackboard.com/support

Student Teams And Cohorts

Since adopting a Collaborative Learning and teaching style (see definitions) I am convinced that my students learn more and that I feel more confident that my teaching is more effective.

Central to this methodology is letting students know from the first class that we would work i.e., collaborate together on mastering the course material. Quite specifically I let students know that perhaps more than anything else this learning style means dynamic interaction between professor and student, student and professor, & student and student. Depending upon the type of class student teams are formed with the first class or first week of class with specific assignments which might involve cases, theories, chapters from texts, or issues from books and articles related to the course subject matter.

In thinking about my own learning experiences as an undergraduate I couldn't recall a single instance where the class was divided into teams with responsibility to work together as teams, yes, there were group presentations but only when each member had a specific topic presented in isolation from each member had a specific topic presented in isolation from the other members of the group. Sad to say the same held true for graduate study which by its very nature engendered competition. Not having gone to law or medical school, where study groups seemed to exist as a normal part of learning. What took so long?

It may be no accident that the largest university in the United States, University of Phoenix, is dedicated among other things, some quite controversial, to the idea that students learn better in collaborative team structures and benefit from cohort groups from admission to graduation. Many business schools now employ this concept, Adelphi University among them, in intensive graduate business management programs.

Again, I cannot imagine teaching any course where, to a greater or lesser degree, student teams would not play an important part in the learning process.

Teaching and Learning Materials from Publishers

At least three publishers of texts (McGraw Hill Irwin, Pearson Prentice Hall and Houghton Mifflin) that I use or am familiar with provide CD's and other materials designed to assist both the instructor and the student in the educational experience. For the instructor this includes tests, notes, cases, videos, web sites with downloadable materials and more. Students often receive a CD to enhance and summarize text materials. The quality of these materials and usefulness to me as an instructor are invaluable.

Two of the most useful supplementary items provided and Power Point slides for the instructor are the on-line self scoring quizzes for each chapter. While assigning grades based on on-line quizzes is problematic for obvious security reasons, the requirement of handing in completed on-line tutorials which are easily printed out by the student is valuable. This saves the instructors from spending more time on regular testing and provides a structured tutorial experience for the student since the quizzes are automatically scored. On the whole these on-line exercises provide a convenient reinforcement of classroom materials.

Faculty have since time immemorial been making outlines of course materials to facilitate class presentations and often to provide students with useful notes to study from. One method that I now use for virtually every course and class that has corresponding Power Point slides is to create folders of slides from the CD's and then incorporates these into my Blackboard account where each chapter's Power Points are put into a single file. It then is simple to log in at the classroom (properly equipped) and retrieve Power Point slides appropriate to the material being presented or discussed by students. My only concern with this method is that it can lead students to assume that everything they need to know is on the slides, which is far from the case. Thus requiring on line quizzes and other testing methods continues to be important in judging the extent to which students have mastered the subjects at hand.

Laser Pointer

An effective low technology device that has always been useful is an expandable pointer that looks like a stainless steel fountain pen. I am always amazed how infrequently pointers are used in meetings and classes and how quickly presenters are pleased to use one when offered. In today's age of high tech color graphics the pointer of choice emits a laser beam, a laser pulsating dot, arrow or line. The first one I used cost around $100 and now they can be had for a fraction of that. Now that so much of what is done in my classes is projected, the laser pointer has become another simple device that I wouldn't be without.

Streaming Video

Many faculty members use video tapes to augment class presentations. Publishers now frequently provide, or make available for a fee, course related videotapes. The use of videotapes requires a classroom equipped with a VCR player and monitor to view the tape. If you happen to be in a classroom not equipped with a VCR player and monitor, one can usually be ordered through an instructional services office. During an instructional session with the Center for Professional Excellence I learned of a new technology available to faculty called "Streaming video". Essentially, streaming video is the process of digitizing VCR tapes and leaving the files stored on a dedicated server in the computer center. Access to the videos is through a restricted website address and password protected for each authorized user, normally a faculty member.

The great advantage of streaming video is having direct access to video material through the web and not having to carry tapes around or make arrangements for having equipment delivered (one hopes) to the classroom. The disadvantage is that you must have access to or have your class scheduled in a smart or hybrid classroom equipped with a PC, internet server and projector. In classrooms equipped as "hybrids" having a laptop to plug in also works well. The application of most value for business classes is with case videos although tapes of interviews with CEO's like Jack Welch also works well.

Audio Systems with Cell Phones

Last semester, while teaching an MBA course at a Corporate Headquarters in Manhattan, a curious application of cell phone technology was stumbled upon by accident. An advantage of being in a corporate faculty was the evening use of an exquisitely equipped conference room with mini-microphones at every chair which permitted the twenty students to speak normally and be heard clearly. Normally, we ban all cell phone use during class but in this case one of the students had to travel during the last two hours of class. Our solution was to have him cell in to the conference room and place him on speaker phone where we could hear him and he in turn could listen in on the class. The message may be that we have just begun to see is how wireless technologies will become part of our instructional repertoire.

Essay Examinations

One of my teaching goals is to learn how to give essay exams online. There are many aids but none has satisfied me as much as the "Blue Book" method. Its greatest flaw is, of course, the need to decipher handwriting that ranges from calligraphy quality to unintelligible scrawl. Times New Roman at 12 points, double spaced would be nice. Trouble is not every class is so equipped although those universities that require laptops may be on to something. In the end some form of writing sample for business courses I teach are essential.

Attendance

While attending an IBM seminar at their Rockland County, NY, education and conference center, I was awestruck by the thought given to attendance taking procedures. I fall into the school of faculty who hates to waste time on attendance and yet fully understand the need for documenting attendance for grades, scholarship eligibility, and the pure fact that without some form of attendance there may be those who might consider other options other than attending your class.

As you register for a seminar at the IBM facility you are presented with a temporary ID card used for a number of things, room entry, meal pass and security in general as you wear it with a lanyard. As you enter any seminar room you are requested to swipe your card at scanners which in turn records your attendance and creates a roster at the lectern for the presenter(s). Now I wonder why we haven't done this at Adelphi for all classes. If you have experience in this area please contact me at payette@adelphi.edu forthwith.

I have experimented with sign in sheets which are fine except to be useful they have to be input some how to be effective. In a small seminar class I passed around an attendance booklet using the honor system just because there isn't enough time in fifty minute sessions to waste on attendance.

Faculty Center for Teaching Excellence (FCPE)

Since 1999, Adelphi University has created a teaching environment that is strongly supported with people and resources to assist faculty in improving or developing new skills designed to enhance teaching. Known as the Faculty Center for Professional Excellence its mission statement reads as follows:

- To assist faculty in the implementation of technology
- To support Scholarship in learning and teaching with a focus on technology
- To encourage reflection on current learning and teaching practices, to foster the development, use and assessment of new learning strategies, environments, curricular and pedagogical approaches and tools
- To engage and support faculty in the process of becoming better designers, planners, facilitators and learners in the evolving academic community.

As one who spent a career in administration and occasional teaching it was a great relief to find outstanding professional assistance on the latest technologies to the faculty when I decided to return to full time teaching. The FCPE has assisted me with group seminars on teaching technologies, with one on one instruction and with a host of services such as streaming video that have greatly enhanced my teaching methods. Among the topics any faculty member can ask for assistance on include:

- Formatting text with Microsoft Word (all levels)
- Power Point Presentation
- Maintaining grade books with Excel
- Retrieving education materials on the Web
- Scanning images and text
- Digital photography
- Digital video
- Image manipulation with Photoshop
- Web page design including shockwave work
- Downloading/uploading (ftp programs)
- On-line Syllabi; Blackboard
- Interactive forms/tests/survey online
- Layout and design
- Converting to portable document format (PDF)
- Advice on new technology products

It is an extremely useful resource to leave for faculty and it makes teaching a varied and interesting experience for faculty and students alike. See http://fcpe.adelphi.edu and http://infotech@adelphi.edu for further information.

Corporate Research Project

Faculties, particularly at the graduate level, have long used graduate students to assist in research projects as a means of teaching research methods. Not only do the students benefit but the faculty receives assistance in data

collection and other aspects of the research process that might not otherwise be available. Both of my graduate courses in leadership in the fall of 2003, participated in an ongoing project related to Corporate Governance. After checking with the faculty advisor in the School of Business on research methods and projects and with approval to proceed, the students were briefed on the project, the methods and purpose of the research effort. The level of interest demonstrated was most encouraging by the students. The project will continue into the spring 2004 semester with another cohort of students. In this particular case low technology method, i.e., structured telephone interviews, will be blended with statistical analysis.

Distinguished Lecture Series

Adelphi University, as most universities do, supports a wide array of guest speakers ranging from notable dignitaries at commencements, convocations and the like. Unless the speakers or topic is rather controversial student interest, unless mandated as part of a class or program, can be limited. One method that has greatly enhanced an executive type MBA program at all has been to bring in speakers on topics directly related to instructional subject but with the added benefit of a sit down luncheon with the guest speaker. This is a low technology device but highly effective in raising the interest level of students. In some instances copies of the remarks were obtained electronically of course and provided to the students for future reference.

Summary and Recommendations

Adopting a collaborative teaching style as well as embracing technological aids where useful and appropriate to the subject matter has greatly enhanced my level of professional satisfaction. My hope is that it has had the same effect on my students. There are a considerable number of studies that reinforce that position. See http://www.id.USCB 📖

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