



COLLABORATIVE TEACHING AND LEARNING: BRIDGING THE DISTANCE

2005 COMPUTERWORLD HONORS CASE STUDY

EDUCATION & ACADEMIA

A VETERAN PROFESSOR WITH DECADES OF TRADITIONAL CLASSROOM EXPERIENCE USED TECHNOLOGY TEACHERS AND STUDENTS FROM LITTLE ROCK TO HONG KONG, TO LEARN FROM EACH OTHER IN AN ENVIRONMENT IN WHICH TEACHING AND LEARNING HAPPENED ALL THE TIME THROUGH BOTH SYNCHRONOUS SHARED AND ARCHIVED ONLINE EXPERIENCES. [20055289]

A Search for New Horizons



SUMMARY

A veteran professor with a decades-long classroom teaching habit used technology to change nearly everything she did. Her students were everywhere, from Los Angeles to Little Rock to Hong Kong. Teaching and learning happened all the time through both synchronous shared and archived online experiences. Learning and satisfaction compared favorably to face-to-face teaching, providing lessons for students and most of all, for professors.

APPLICATION

There are millions of people across the world who are teachers, professors and content experts. Alas, for the most part, their teaching approach harkens back to Socrates, Aristotle and the Sophists. For eons, it has been one expert. many novices, one authoritative voice, and moments shared in time and place.

Ask just about anybody at a university or a corporate or government center to imagine a wonderful class. Their mental image will be of a room with a caring, smart, enthusiastic teacher in command of an active, engaged, happy cohort of students.

Along comes technology. Now experts can reach beyond a building, a room, a time, and a few handfuls of students. They and their lessons and passions can span the globe. No matter the topic, from economics to wide area networks to music, engineering, graphics, or cryptology, professors can team with technology to put swift and sturdy legs on content and lessons.

This is my story. It's about a veteran professor who likes and uses technology, but who, until recently, preferred those special moments in classrooms, just me and my students. Technology was a good ADDITION, in my view. I'd always used it. I was also certain that technology could not, should not, be the whole enchilada for a graduate course, and certainly not for MY graduate course.

When my department chair asked me in early 2000 if I would be willing to teach one of my advanced classes completely online in 2004, I agreed. I like to try new things. And, as I said, I like and use technology to teach my campus students. Besides, 2004 was then a million years away.

Well, turned out it wasn't. Time passes swiftly when you're having fun.

Early one morning, Chair Donn Ritchie distributed a document with our upcoming online courses. I glanced at it and discovered that in a scant eight weeks, I would be teaching a graduate course online to students everywhere, anywhere. Very, very soon it would be time to turn my chatter about the glory of distance learning and cybergogy into a successful web-based learning experience for graduate students no matter where they lived.

Of course I am not the first to confront this challenge. But this time it was MY course and MY students.

I set about worrying.

I worried about my ability to develop vivid web-based assets. Did I have the time and expertise to build effective systems and materials?

I worried about my ability to handle the technology. I stressed over the challenge of creating an online community propelled by more than requirements. Could I create web classes worth attending? Would my

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archived sessions compel attention? And I worried about my students' persistence. Drop outs are a problem with online learning. Could I make my class sufficiently "sticky?"

I worried about student access to technology. Without my physical presence, would they focus? Do assignments? Work in teams? Maintain momentum?

Would I and my students pay a big price for not being together in time and place, for allowing technology to serve as our bridge and home base?

As I planned my online program, I continued to teach my campus classes. I was conscious of appreciating the liveliness and informality of our classroom interactions. I waxed nostalgic for the importance of body language and flashing eyes. I was grateful for conversations that happened as we ambled down the hall.

Still, soon, no matter my rejuvenated sense of the joys of the classroom, I was indeed taking my class online.

EDTEC 685 is a class I've taught on the San Diego State campus since the early 1990s. On campus it was successful.

This is the story of what happened when I took that graduate class online, totally online. What did I do? What did they do? How did synchronous and asynchronous technology advance our goals?

Net. Net. It wasn't easy, but it turned out well, and was a classic case of the teacher learning more than her students.

BENEFITS

-- They liked the class more than I'd anticipated. In end-of-class surveys done with the campus and online cohorts, the satisfaction of online students matched or exceeded reactions from campus-based peers. Ninety-four percent of the 16 responding online students reported that the class was equally or more engaging than other courses they had taken. More than 90% reported that they would tell a friend that it was a great idea to take the class online.

-- I liked the class more than I'd anticipated. This project demonstrates a whole new way for instructors and professors to communicate, provide resources, teach, assess, and mentor. I went into it with some significant hesitations, as do many professors. I worried that the experience would be cold, lifeless, distant. It wasn't. Not at all. I enjoyed warm and lively email interactions with my online students. I was amazed when an online graduate student from Pennsylvania rushed up to me at a conference in Washington, DC, to introduce me to his father. The student and I were excited about our first face-to-face encounter. Next month two online students, one living in Seattle, the other in Little Rock, will join me in San Francisco on a panel at a national conference to talk about the implications of the Internet for their continuing professional development.

-- They stuck with it. While we lost two students at the very beginning of the course, two switched to audit status and two were incomplete, throughout we maintained an unswerving group of busy professionals at a distance from San Diego.

-- There were surprises. Even though I have taught for many years, and worked with technology for teaching and learning, I wouldn't have guessed at the importance of the synchronous events. Using Macromedia Breeze, I gathered my students for scheduled "meetings." I made presentations, did think-alouds, invited guest speakers, and asked students to respond and present. Prior to the class, I would have underestimated the importance of those live synchronous elearning experiences. They bonded us as a group and defined individuals and personalities. After the class, when asked what mattered most to them in the course, they pointed at posted asynchronous assets first of all, and synchronous classes and conversations next. I'd sniffed at synchronous meetings prior to this experience, I will not again.

-- It's all about a new way of professoring. It's almost a cliché, but you do shift from sage on stage to a guide by their side, a coach, even a nag. You are also less a deliverer and more a developer of assets that must stand on their own, forced to see it as your students will, no matter where they live. Another major shift is from 'offering' a good class that ends at 9:30 PM every Tuesday to continuously engaging students over time and across time zones.

-- Success relies on creating systems and assets, not just knowing how to deliver expertise. It is tempting, but inappropriate, to take PowerPoint slides, policy manuals, and lecture notes and plop them online. Strategies

that capture attention, deepen reflection, and maintain motivation must be scrupulously integrated into the experience. Are war stories and anecdotes included? Does e-coaching advance messages and humanize? Are examples and assets available 7-24? Is feedback continuous and speedy? Are directions and expectation clear and vivid? Are they repeated? Are roles for the professor, assistant and students designed, defined, and maintained? Are there incentives for faculty to engage in these substantial changes?

-- Not all students are equally ready to learn online, independently. The published literature is clear that not all students are good at independent learning, at managing themselves and their schedules through class hurdles and life rigors. Organizations that move towards more online learning must provide resources that improve learning-to-learn skills and provide equitable access to scarce or expensive technologies. It is not sufficient to put classes online and to say to all students, "Come and get it. Feast. It's here, online. All you need to do is double click." There's need to help students self-assess, boost their technology platforms and provide access human coaches.

-- This was about students, learning, teaching and money. Yes, money too. Higher education has outstripped inflation in recent decades, demonstrating numbers that eclipse even the skyrocketing costs of health care. Locked in competition for public dollars with health care costs, students collect debts that burden them long after graduation. Taxpayers are restless about these costs. Expertise and content are expensive, very expensive, often limited to those with the ability to pay, whether that's an individual, organization or even a country. What I did with this course was to create assets and experiences that worked while I slept and that could be used by less experienced people to teach in places distant from San Diego. Certainly, there are concerns about intellectual property, and they deserve serious attention. But what this effort does is enable experts to go on the road via technology without themselves ever going on the road. Costs can be reduced; technology leveraged; access increased. The opportunity to make rare expertise more widely available has potential to help underdeveloped countries and people with fewer resources access what they need when they need it.

IMPORTANCE

The class was a technology 3-ring circus.

Macromedia Breeze Live was at the heart of it all. I relied on it for synchronous meetings and it worked niftily. I set a time, created a url, produced some PowerPoint or video materials, and invited students across time zones to join me. They used their browsers and voila, we were together online. They could see and hear me through Breeze, with my inexpensive web cam and head set. They participated through text messaging and occasional VOIP connections. These sessions were sprinkled throughout the semester, disadvantaging everybody somewhat equally, given their time zones. Our time together online lasted an hour and flew by.

I also used Macromedia to produce asynchronous assets on key course topics. Important to me and many faculty members, I was able to repurpose presentations that I'd used in prior classes, although I shortened and re-designed them. This library of 25-35 minute presentations with audio was available 7-24. Now, a semester later, I point campus students to them. They will serve as the core of my next online offering of this course.

Then there was BlackBoard. This course, like all courses at SDSU, has access to BlackBoard. It provided a home for resources and materials, links, and structured discussion board conversations. Grading and criteria were also posted there. This course was unlike anything most students had ever experienced. They had questions. At first, I answered those questions. Then I, at the urging of my teaching assistant, set up a thread on BlackBoard, a student lounge what we called it. They began posting their questions there and received speedy and helpful responses about how to do this or that or where to find a particular resource.

I produced three kinds of technology-based assets: (1) synchronous events, where we got together at appointed times for presentations, practices and feedback; (2) asynchronous assets that formed a library of content available wherever, whenever; and (3) structured resources and questions to encourage individual contributions to threaded conversations. Assets 1 and 2 were developed and delivered via Macromedia Breeze. Asset 3 was primarily BlackBoard based.

The departmental file server hosted the course. Flopping into a seat every Thursday night for 2+ hours doesn't take as much commitment as is required of online students who must allow the content, instructor, peers, and requirements to permeate their lives. To help students manage their time, I provided a web-based syllabus, produced with Macromedia Dreamweaver, that detailed the what, why and how of the class:
<http://edweb.sdsu.edu/courses/EDTEC685/online/index.htm>

Email, modest though it is, was critical. I sent out weekly email messages to remind students about what they were supposed to have done this past week, what was expected this upcoming week, and what I had been up to. Live links were sprinkled throughout the weekly message to make it easy to check out a presentation on Topic A or expectations for Assignment B. I also said a bit about what was going on in my life, where I'd been, how my cat with cancer was coping. I also used email to send out the occasional nifty resource or to respond immediately to a student with a question or a howdy.

ORIGINALITY

This wasn't the first online graduate course.

And it wasn't the first use of Macromedia Breeze to jump over oceans and rivers.

What we did was use technology to make distance matter little. Sensitive to the literature on quality instruction and instruction online, we tried and created an engaging learning experience for students, no matter where they lived.

We took advantage of readily available technology to deliver many kinds of learning and assessment strategies. Some were asynchronous and "in the can." Some were synchronous and archived for later use. All had numerous examples, lively conversations, and opportunities for students to practice and comment. For assessment purposes, I asked them to reflect and write about certification; write about unfamiliar approaches and interventions; plan an analysis for a global company concerned about elevating ethics across the organization; entertain the possibilities inherent in a makeover that leveraged what they were learning in class; and collaborate with campus-based students to solve typical workplace challenges and then to share them widely using our technologies.

A veteran professor with admitted doubts about a totally online graduate course tried it and found it exceeded her expectations in the ways that matter to her.

SUCCESS

Modest goals were achieved. Students liked it, in fact, they liked it slightly better than their peers on campus liked the parallel placebound course.

They were keen on the online library of assets and on the synchronous meetings.

They learned. One of the concluding assignments was a "makeover," where they were asked to look at something done by their organizations and to identify how they would "make over" those efforts, given what they had learned in class. Several makeover papers have been published by the International Society for Performance Improvement at www.performanceexpress.org.

While the technology would have supported hundreds of students learning just about everywhere the Internet and a browser go, in this case we served 24 students online and 23 on campus. It was a pilot effort.

This effort has blown away my resistance, solidified by commitment, and intrigued others.

My plans are to do more courses online. Why not? It worked.

DIFFICULTY

This kind of effort presents difficulties. All should be anticipated and mitigated:

It takes MORE professor time, not less. That might not be true going into subsequent iterations, but it certainly was true for the first developmental effort. New things and ways are required; they take thought and effort. For this course, I was even more energetic than is typical for me. I sent out weekly messages and posted assets on schedule. I returned assignments with feedback in less than a week, often in just a few days. I responded immediately to student concerns and contacts. And I do mean immediately. And I set about to build short, high value assets for graduate students to experience on their own. Development takes time.

It also requires support. I was blessed with a teaching assistant, Rebecca Frazee. Online students should not be required to wait for a week because I'm traveling. When out of town, teaching assistant Rebecca provided near immediate feedback. I also had wonderful technology support from Macromedia and my own campus, by our

lab people, and the Blackboard support staff at SDSU.

Professors would benefit from consulting from instructional designers expert in online learning and teaching. That's not just my opinion. There are studies to support it.

[<http://www.educause.edu/apps/eq/eqm04/eqm0414.asp?bhcp=1>]

What's interesting, of course, is that university teaching is typically a solitary endeavor. Experts in all fields teach as they were taught with rare tutelage about teaching. Online teaching and development of assets and systems is, of course, a new and different challenge. Organizations must anticipate questions and provide ready guidance and coaching.

When you introduce a new way of doing something, glitches are inevitable. Even though Macromedia Breeze keeps it simple and requires only accessing a url, there were challenges. Corporate firewalls had to be scaled, for example.

Nerves frayed, but only at first. As we tried new things, made expectations clear, responded rapidly and calmly to concerns, and patiently helped students come on board, they settled down, loosened up, and were enthusiastic about our pioneering venture.

Rely upon VOLUNTEER professors and experts. This isn't something that can be mandated into existence. As Peter Drucker said somewhere, knowledge workers cannot be coerced. They own the means of production. This is true of professors in this circumstance. They have to choose to think anew and irreverently about how they teach and how their students learn and engage. I'm glad I did.