From Theory to Practice: 10 Things I've Learned About Teaching and Learning Online

(Presented at the NCA&T and ALN workshop, October 11-13, 2006 by Dr. Valorie McAlpin, Executive Director of Online Learning, College of Agriculture and Natural Resources, University of Maryland, College Park)

Background

Most of my career in DL has been spent in administration…..developing policies, building support systems, seeking funding, managing personnel, working collaboratively with faculty, staff, and administrators. I've been fortunate in the last few years to work closely with Jan Poley and ADEC on the NSF-funded research project to examine the educational effectiveness of Satellite-based Internet for rural and remote learners. Just recently I've had the opportunity to participate as a student in a 5-week intensive faculty training class in preparation for teaching online at UMUC. I am also teaching a face-to-face course on campus which is a 1 credit required freshman orientation course called UNIV 100.

So, I've been more on the theoretical side of distance learning until just recently. I began my career here at NCA&T right before distance learning really began to take off here. Just as it began to take off, I accepted a position at the University of Maryland at College Park as assistant dean for distance and continued learning, later serving as associate dean for communications and IT. I currently serve as Executive Director of Online Learning for the College. Distance learning has always been my passion as I believe it has the power to change lives. I also believe it levels the playing field for those learners who may have been denied access to educational resources.

Teaching and learning online is fascinating and because we're part of a global knowledge economy, online learning is growing by leaps and bounds. And because of more highly developed course management software and multimedia applications, we're seeing more quality in online course, more emphasis on interaction and feedback, simulations, and use of advanced pedagogy.

We're beginning to see less and less emphasis on just using technology to deliver traditional lectures, a very passive approach used in residential classrooms and face-to-face (f2f) teaching. Increasingly, more faculty use course management systems to enhance residential teaching.

10 Things I've Learned About Teaching and Learning Online

1. *Online teaching and learning is based on adult learning principles and lends itself toward a constructivist theoretical approach.*
2. *Course development takes more time and money than you think.*

3. *Time management of interactivity and feedback is very time consuming.*
4. *Amount of detail required in an online course is significantly greater than a f2f course.*
5. *Structure of the online course must make sense to students.*
6. *Regular, substantive feedback is necessary for retention and student satisfaction.*
7. *Anytime, anywhere learning can be addictive.*
8. *Design courses for minimal bandwidth. Nothing is more frustrating than having to wait for graphic files to load.*
9. *Build adequate support infrastructure to sustain online courses.*
10. *Online learning in the context of a global knowledge economy can be a very powerful learning experience.*

1. Online teaching and learning is based on adult learning principles and lends itself toward a constructivist theoretical approach.

Changing mental models and constructing new knowledge empower learners and encourage critical thinking. "Knowledge becomes a function of how the individual creates meaning from his or her experiences; it is not a function of what someone else says is true." (Jonassen, 1995)

Characteristics of quality teaching and learning based on constructivism:

- Fosters meaning-making, discourse
- Moves from knowledge transmission to learner-controlled systems
- Provides for reciprocal teaching
- Is learner-centered
- Encourages active participation, knowledge construction
- Based on higher level thinking skills—analysis, synthesis, and evaluation
- Promotes active learning
- Allows group collaboration and cooperative learning
- Provides multiple levels of interaction
- Focuses on real-world, problem solving

2. Course development takes more time and money than you think.

Whether you're designing an online course from scratch or transitioning an existing course into the online environment, whether you're developing a credit course or a non-credit course….there are certain preliminary steps you have to consider as you proceed with course planning and development. For credit courses, new course proposals generally have to be approved by a college level review committee. At UM, this committee is called the Programs, Courses, and Curriculum Committee (PCC). After passing the College review, the new credit course proposal then

proceeds to the University review committee which all totaled could be a 4-6 month review process. If you're developing a non-credit course, you may want to partner with your Office of Professional Studies or Continuing Education to provide online registration, payment and general helpdesk support. After the administrative approvals are received, content needs to be developed and peer reviewed or existing peer reviewed content needs to be integrated into your content management system (CMS). You may also want to consider development of interactive animation exercises, or use of multimedia to enhance learning. Do you need a teaching assistant (TA) to assist with course development and teaching support? Do you need an instructional designer to assist with multimedia development? What about usability testing/pilot testing and revisions to the course based on this feedback? If you're going for the best possible quality that you can afford you'll want to test your market and revise your course continuously to fit market demand. Which financial model will sustain this effort…faculty overload, percentage of revenue to the originating department?

To address each of these concerns takes considerable time, funding, teamwork and administrative support.

3. Management of interactivity and feedback is very time consuming.

UMUC's Office of Evaluation, Research, and Grants is conducting a study to identify the most effective strategies for teaching and learning online. Some preliminary results show that "continuous faculty feedback is strongly correlated with lower student withdrawal rates." Online faculty are expected to respond to postings, encourage and manage interaction within the class (which can be an art form in itself). Most of you in the room who have experience teaching online would probably agree that there is more interaction in the virtual classroom than in your f2f classrooms…..so much so that it is very challenging to keep on top of it all and provide substantive feedback…..not just, "good job," or "keep up the good work," but comments that encourage critical thinking and analysis, or real world application. With the faculty training course that I just completed, often there would be so many postings on a given topic that it was not feasible to read and respond to all of them. Threaded discussions represent the heart and soul of online courses. These are spaces where students interact with other students, with the faculty mentor, or with visiting faculty. Ideas are challenged, problems are identified, and creative solutions are debated.

4. Amount of detail required in an online course is significantly greater than a f2f course.

This surprised me more than anything else about teaching and learning online. The amount of detail required is significantly greater than a f2f course. Of course we all realize that in a f2f class you have a certain creative license, more flexibility. You

can deviate from the syllabus and justify this to the class…no big deal. But in an online environment, you have to be totally structured with lots of detail to clearly explain every aspect of the syllabus….including course objectives, timeline, grading criteria, assignment checklist with deadlines, late policies, participation rubric, feedback schedule, project descriptions….etc.etc. There should be sufficient detail to minimize confusion and problems later on. In the study I referenced earlier, one of the key factors positively impacting teaching and learning online is making the learning goals and the path that lead to them clear to students….clearly stating the learning objectives and spelling out a timeline for meeting the objectives, identifying the recommended order of use for course content and resources….all are instructional strategies that ensure success in online environments. In an online class, ambiguity can wreak havoc. That's why the UMUC study recommends the use of grading rubrics for each assignment and for participation so that students know exactly what is expected of them. Leave nothing to interpretation and don't assume that students will understand. Spell it out in full detail. The more detailed information students have, the fewer problem emails that you as faculty will receive.

5. Structure of the online course must make sense to students.

Students need to understand the course structure. They also need to know how to use whatever CMS you are using. There should be a web tour of your CMS or a brief orientation module addressing FAQs about the course or technical requirements for accessing the course. The help desk function should always be front and center and easily accessible. But the actual structure and design of the course itself, should make sense to students. The course must be well organized with a logical format. Is it clear to the learner what the course goals and objectives are? How will the objectives be achieved? How will students know when they have successfully met the course objectives? What's the sequence for covering the course content? What are the timeframes that students need to plan for? What are the academic policies that relate to this course? As adult students, there may be unforeseen events and problems that arise such as illness, lost of job, having to relocate, dog ran away, mother in law came for a visit. But if they can see well in advance what the course will require, they're better prepared to rearrange schedules and times to address major requirements of the course.

6. Regular, substantive feedback is necessary for retention and student satisfaction.

Without regular feedback from the instructor, how will students know you're even paying attention? I found from my experience that I learned more from my colleagues who were taking the course than I did from the instructor. I believe this occurred because of several reasons, but primarily because the course was so well designed with research based peer reviewed content that had been modified for continuous improvement. The other reason is that the members of the class were faculty from all over the world many of whom had online teaching experience and had many tips and unique experiences to share with the class. The instructor however

was there to manage the discussion and keep everyone going in the same direction, answering questions related to assignments, group projects and so on. And of course, he posted grades in the portfolio on a weekly basis and sent email reminders to encourage students to follow certain protocols of the course.

7. Anytime, anywhere learning can be addictive.

How many of you in the audience have taken a course online? How many of you have taught a course online? If you've never taken an online course, I would encourage you to give it a try. I found it to be a very addictive process. I could not walk pass my laptop without wanting to go online to read my colleagues' responses and see whether someone responded to one of my own postings. I would end up with my laptop in bed with me, preferring to be online rather than watch TV or read a book. And of course, we have wireless access in most hotels, malls, public libraries so you can be connected whenever you'd like…..tremendous flexibility. You can learn when you feel like it and on your own terms which I found to be very empowering. You can learn a little or you can learn a lot. It's up to the individual.

8. Design courses for minimal bandwidth. Nothing is more frustrating than having to wait for large files to download.

Those of us who work in higher education often forget that there are remote learners who still use 56K modems. These are often the students who take online courses because they live in rural or remote areas and cannot easily get to a campus to take f2f courses. Many students who live in foreign countries may also have bandwidth limitations. During the last week of UMUC's faculty training course, I had to be with my Mom who lives in the mountains of western North Carolina. I anticipated problems getting access to the Internet from where she lives, so I borrowed a laptop with a cell phone adaptor and software. Well, as it turned out, I had trouble logging into UM servers but had no problems logging into the UMUC server that was hosting the training course website. The UM homepage has lots of photographs and graphics and was taking forever to load. I had major problems checking my email via Web Mail, but had easy access to UMUC because their pages are designed remote learners in mind.

9. Build adequate support infrastructure to sustain online courses.

Access to virtual library resources is central to online courses. Can learners easily find and retrieve articles online? Is reserved reading available online? Do faculty know how to use virtual library resources for their courses? Are there other virtual resources available to students such as writing assistance centers, virtual labs and tutoring sessions? What academic policies are in place to support online learning….policies regarding intellectual property, copyright issues, students with disabilities, transfer of credits, faculty compensation? Are there training programs for faculty who are new to online teaching? Is there an orientation program for students

who are trying online courses for the first time? How accessible is the help desk for both faculty and students? Do they have 24/7 support? A strong infrastructure increases retention rates for online students and sustains growth of the program.

10. Online learning in the context of a global knowledge economy can be a very powerful learning experience.

To be competitive in a global knowledge economy, our students must not only have *access* to continuous learning. We must move beyond access. We need to mainstream distance learning to encourage new teaching and learning models that fully embrace the power of new technologies to deliver high quality learning anytime, anywhere. Online learning brings other learners from throughout the globe into the virtual classroom in an exchange of ideas, creative solutions and problem solving. I believe that online learning is changing the traditional model of passive teaching based on lectures and note taking. Online teaching and learning is bringing about greater collaboration across disciplines, and a richer learning environment for both faculty and students. To succeed in a Flat World, we must embrace change or we find ourselves slipping behind other developed countries like China and India where outsourcing is replacing many of our traditional jobs…but we have an opportunity to be creative and invent our own futures if we dare to be bold and embrace new models of teaching and learning.