Message From The President
Learning Something New, for our Students' Sake
Judy Miller, Clark University

Every few years I have set myself the task of learning something new and difficult. Over the years my learning endeavors have included acting, Ukrainian (the language), and yoga. Although my learning was prompted by extra-professional interests, eventually I realized that the process of learning something new and difficult was also informing my teaching. As experts in our disciplines, we have the knowledge, experience, and understanding that enable us to grasp unifying concepts, make associations, and distinguish nuances that are beyond the capacity of novices in the field. Most recently, I was reminded of this gap between expert and novice when, after many years of being an expert in my own field, I volunteered for the role of novice in yet another new field—bridge (the card game).

Early in my bridge learning, my friend and coach loaned me a set of beginning bridge books. For the first several weeks, I was overwhelmed by the amount of memorization that seemed to be required. Bridge bidding seemingly has a limited vocabulary—roughly 40 possible bids—but each bid can have multiple meanings depending on the situation that exists when the bid is made. The meaning of a particular bid can differ depending on whether it is the opening bid, whether it is made in response to a partner's opening bid, or whether it is made in response to an opponent's opening bid. Many bids have taken on meanings different from the apparent (natural) meaning of the bid because of generally used conventions. For example, depending on the situation in which the bid is made, a bid of "two clubs" can mean "We

should try to make eight tricks with clubs as trump," "I have an extremely powerful hand (saying nothing about clubs)," or "Partner, tell me if you have four cards in either *hearts or spades," and these different meanings depend on the context in which the bid is used. Whenever I moaned about how much there was to memorize, my friend told me that it wasn't about memorization, but instead it was about grasping a few basic concepts that served as organizing principles for the details. This advice was startling in its resemblance to what I have told my students about learning biology—don't try to memorize 1000 pages of facts, instead wrap your brain around the big concepts (genetic code, food chain) and hang the details on the concepts. Yet even though I knew that my coach's advice was right, as hard as I tried, I was initially unable to organize my nascent knowledge around big concepts. Only after I had memorized some basics was I in a position to begin to make associations among items I had memorized, and then to begin to understand the concepts that my coach was emphasizing. As a result of my own struggles, I don't think I will so lightly dismiss the perception of my students that memorizing facts is essential to learning a new field.

There are many other examples of how bidding in bridge is highly context-specific. For example, bidding "one no trump" in response to a partner's opening bid indicates an entirely different hand than bidding one no trump after an opponent has opened— and I have confused the two situations dozens of times. Memorizing the natural meaning of a bid—and I still rely

From the Editors:

The theme of the upcoming NEFDC Spring Conference is, "Thinking Outside the Box: Teaching & Learning Beyond the Classroom Walls". Accordingly, the articles in this issue of the NEFDC Exchange address that theme. The articles deal with learning from experience in and out of the classroom by modeling inquiry, media criticism, political activism, using virtual worlds, playing with ideas and even gazing into the stars.

Other parts of the newsletter provide information about resources and activities that promote professional development.

And of course the events, the newsletter, and the website sponsored by NEFDC, as described throughout this issue, all exist purely to support professional development for faculty and staff.

We hope you enjoy this issue, and we welcome your feedback and future contributions.

In This Issue...

largely on memorization—is hard enough, but it is even harder to memorize the artificial meanings (conventions) that experienced players give to specific bids based on different bidding situations. It is equally difficult for me to avoid misapplying a piece of learning to an inappropriate new context. During actual play, interpreting the bids that have been made already by both partner and opponents, and choosing the appropriate bid to make based on one's hand, requires an accurate memory of the bids that have gone before and of bidding conventions, and analysis of how to apply what has been memorized. These mental gymnastics are made more difficult by the need to perform them under time pressure. It is not much of a leap to see the similarities between the difficulties and pressures that I experience playing bridge and the difficulties and pressures that our students experience in our classrooms and in test situations.

A few months into my bridge learning, I participated in a social game that included an advanced player. In response to a question at the end of a hand, this advanced player raced through his explanation using advanced jargon. His explanations presumed that I had the detailed knowledge and insight that he had, and he spoke in an offhand tone that made it clear that further questions would be an annoyance.

It soon became clear to me that this person was more interested in showing off his expertise than he was in teaching. In contrast to that advanced player's seemingly egocentric approach, my friend and coach has endless patience. He walks me through endless practice hands during which he provides manageable "hooks" on which I can hang my new knowledge, uses terminology and references that are meaningful to me at my stage of development, asks questions that challenge me to think through a decision, and when necessary explains the same points over and over again, all with grace and humor. I wonder if I consistently exhibit the same patient coaching behaviors with my students.

Most of us are far removed in time from being students ourselves. But we can, and I maintain that we should, invest the effort to keep on learning new things outside our area of professional expertise. Aside from the benefits of new learning for personal enjoyment and mental stimulation, our students will likely benefit. Even if you don't take on a new learning project yourself, remember that in your classroom, you are not addressing other experts in the field, but rather novice learners. Seeing a learning situation through the eyes of a novice, even for short periods of time and not for a grade, can open our eyes to their experiences, and make us more effective educators.

Practice First: Learning From Experience

Joseph A. Raelin
The Knowles Chair of Practice-Oriented Education
Northeastern University

In his [upcoming] talk, Prof. Raelin hopes to instigate a dialogue about ways to actualize a new epistemology of practice that places practice at the heart of learning discovery. Practice epistemology would likely change our standard conception of the role of the teacher from the transmitter of knowledge to the facilitator of learning consistent with an inquiry-based democratic pedagogy. Adopting constructivist logic brings to mind a distinction that adult educator Malcolm Knowles (1980) made between andragogy and pedagogy. In andragogy, students are encouraged to be more autonomous in their actions, more reliable in their assessment of their own capacities and developmental needs, and more capable of accepting greater levels of responsibility for their own and others' actions. In andragogical practice, then, teachers would model such behaviors as tolerance of ambiguity, openness and frankness, patience and suspension of judgment, empathy and unconditional positive regard, and commitment to learning. Clearly, the opportunity to demonstrate these behaviors calls for settings that are less hierarchical than the standard classroom.

The creation of learning cells or learning teams are appropriate along these lines because such structures, along with sensitive facilitation, provide the student with a safe environment in which to experiment with others to accomplish diverse learning goals (Michaelsen, Knight, and Fink, 2002). In particular, the learning team can become a human laboratory in which students can become more aware of their actual behaviors in their group, such as exercising influence, establishing meaning, or effecting meaningful change. Moreover, learning team methodology can be applied across a range of activities, such as group writing, web-based discussions, log exchanges, simulations and role-plays, in-class problem solving, and off-campus projects (Vega and Tayler, 2005). Our role as teachers then becomes much more encompassing than merely delivering content since we are either explicitly or implicitly modeling inquiry. This is not to say that there is no value in delivering content or introducing students to declarative knowledge, namely the set of facts relevant to the skill or subject in question (Anderson, 1983). Just as a master is not expected to hold back his expertise, teachers are not required to tuck away their knowledge for fear that it would interrupt the students' learning process. In a review of the literature on the pure discovery model of education over a 30-year time span, Richard Mayer (2004) found that unguided discovery methods only exceeded lecture methods when supplemented by trained facilitation. The reason for this conclusion was that students needed facilitation because their cognition activated by experience required integration of new information into a taught knowledge base.

Instruction takes place within the workplace and can be front-loaded, back-loaded, or just-in time. Instruction can also constitute mutual learning with one's peers (Hughes and Moore, 1999). Much can be learned from observing and modeling those who have a higher level of competence, as has been documented by social learning theorists. The modality of instruction can vary, from exacting demonstration of how to do things to casual storytelling.

It's more a question of when to introduce scheduled answers in favor of unscheduled inquiry. A balance needs to be sought, contingent on such factors as individual learning styles, complexity or unpredictability of subject matter, or time available, between rote acquisition of subject matter versus meta-cognitive processes of inquiry. The latter help students develop their thinking skills to become more self-reliant, flexible, and productive in their learning endeavors (Flavel, 1979; Scheid, 1993). In particular, meta-cognition can be especially valuable to help students learn how to construct new knowledge when faced with problems for which there is no known solution or even for which there is no known conceptual lens. Under such unpredictable circumstances, we may encourage our students to engage in reflection-in-action, incorporating such behaviors as on-the-spot reframing, re-evaluation of past experiences or precedents, or spontaneous testing of available knowledge to arrive at a solution to the immediate problem (Schön, 1983).

It may be thought that facilitating teachers appear dull or detached because they choose not to hold center stage in the classroom. On the contrary, they can be just as animated about the subject matter and learning process as the most charismatic of teachers; what distinguishes them is their orientation toward learning. Is it their job to fill the cup of knowledge on behalf of their students or is it their job to help create conditions when their students do it for themselves?

Here are some learning behaviors that tend to differentiate teachers adopting a facilitating rather than a centrist approach to teaching:

• Instead of asking questions that have a preconceived correct answer, they may probe, while suspending some of their presuppositions about the answer, so as to concentrate their full attention on the student's reasoning.

• Instead of first jumping in to provide their expertise to solve an individual or team problem, they may let students offer their solutions to each other while acknowledging that their ideas would only serve to enrich their own.

• Instead of masking their lack of knowledge with an obfuscated answer, they may acknowledge their ignorance often along with a view on how all might approach the problem at hand.

• Instead of allowing their students to downplay their experience as compared to their own wealth of academic study, they may reinforce the deep value of their practice-knowledge while looking for ways to make it more accessible to them.

• Instead of over-preparing their lecture presentations to demonstrate their clarity of thought, they may concentrate on how to introduce new material using multiple methods and entry points to appeal to the students' diversity of learning styles.

• Instead of requiring students to write concept-based reports from their experiences in the field, they may encourage them to journal on these experiences using their own style and idiom but prompted by questions that might induce deeper reflection.

• Instead of encouraging students to offer opinions to one another, they may invite them to ask good genuine questions to bring out the collective knowledge of everyone.

• Instead of seeking consensus on a controversial topic, they may express tolerance for a resolution of indeterminacy in order to promote ongoing reflection on the topic.

Practice epistemology is in line with recent work on facilitating student success in higher education through such practices as student engagement (Chickering and Gamson, 1987), teaching and social presence (Gunawardena and Zittle, 1997; Rourke, Anderson, Garrison, and Archer, 2001), and teacher immediacy (Gorham, 1988; Sanders and Wiseman, 1990). These practices speak to the need for teachers to maintain close contact with their students; provide sensitive feedback on their work; encourage and reinforce their contributions; and create a warm, open, and trusting environment. Note too that some facilitating conditions can be assumed as much by the student as the teacher. For example, it is not necessary for just the teacher to provide feedback on learning. Yet, it is also unlikely that students will immediately or without provocation assume responsibility for the learning environment, given their often conventional socialization as empty vessels.

Consistent with the social constructionist approach, teachers can adapt the hands-on apprenticeship system of skill acquisition to a model that builds upon the complex cognitive skills that are required to organize our thinking processes. Known as the cognitive apprenticeship model, it also takes advantage of two related constructionist precepts: that learning occurs most readily when it is tied to authentic activity and culture (Lave, 1988; McLellan, 1995); and that as a social process, learning can be acquired by learners in discursive interactions with their teachers and among themselves. To set up a cognitive apprenticeship, the teacher or expert first maps the inherent expert strategies entailed in a task and breaks them down into developmental tasks, or scaffolds, that assist the student in applying them to a real situation with a real outcome. While being coached by the teacher, learners are also encouraged to articulate their reasoning and reflect with each other on their approaches. In time the teacher's support fades as students begin to apply their learning to emerging and personally relevant problems (Collins, Brown, and Newman, 1990).

References:

Anderson, J. R. 1983. The architecture of cognition. Cambridge, MA: Harvard University Press.

Chickering, A. W., & Gamson, A. F. 1987. Seven principles for good practice in undergraduate education. Racine, WI: The Johnson Foundation, Inc./Wingspread.

Collins, A., Brown, J. S., & Newman, S. E. 1990. Cognitive apprenticeship: Teaching the crafts of reading, writing, and mathematics. In L. B. Resnick (Ed.), Knowing, learning and instruction: Essays in honor of Robert Glaser: 453-494. Hillsdale, NJ: Lawrence Erlbaum.

Flavel, J. H. 1979. Metacognition and cognitive monitoring: A new area of cognitive-developmental inquiry. American Psychologist, 34: 906-911.

Gorham, J. 1988. The relationship between verbal teacher immediacy behaviors and student learning. Communication Education, 37: 40-53.

Gunawardena, C., & Zittle, F. 1997. Social presence as a predictor of satisfaction within a computer mediated conferencing environment. The American Journal of Distance Education, 11(3): 8-26.

Hughes, K. L., & Moore, D. T. 1999. Pedagogical strategies for work-based learning. Paper presented at the 1999 Meeting of the American Educational Research Association, Montreal.

Knowles, M. 1980. The modern practice of adult education. From pedagogy to andragogy (2nd ed). Englewood Cliffs, NJ: Prentice Hall.

Lave, J. 1988. Cognition in practice: Mind, mathematics, and culture in everyday life. Cambridge, UK: Cambridge University Press.

Mayer, R. E. 2004. Should there be a three-strikes rule against pure discovery learning? American Psychologist, 59(1): 14-19, 2004.

McLellan, H. 1995. Situated learning perspectives. Englewood Cliffs, NJ: Education Technology Publications.

Michaelsen, L.K., Knight, A B., & Fink, L.D. (Eds.). 2002. Team-based learning: A transformative use of small groups. New York: Praeger.

Rourke, L., Anderson, T., Garrison, D. R., & Archer, W. 2001. Assessing social presence in asynchronous text-based computer conferencing. Journal of Distance Education [Online]. Available: http://cade.athabascau.ca/vol14.2/rourke_et_al.html. Retrieved March 26, 2006.

Sanders, J., & Wiseman, R. 1990. The effects of verbal and nonverbal teacher immediacy on perceived cognitive, affective, and behavioral learning in the multicultural classroom. Communication Education, 39: 341-353.

Scheid, K. 1993. Helping students become strategic learners: Guidelines for teaching. Cambridge, MA: Brookline Books.

Schön, D. 1983. The reflective practitioner: How professionals think in action. New York: Basic Books.

Vega, Q. C., & Tayler, M.R. 2005. Incorporating course content while fostering a more learner-centered environment. College Teaching, 53(2): 83-86.

NEFDC 2008 Spring Conference
"Thinking Outside the Box:
Teaching & Learning Beyond the Classroom Walls"

This conference is co-sponsored by Northeastern University Martha's Vineyard Summer Institute on Experiential Education (MVSI), the World Association for Cooperative Education (WACE) and NEFDC and will be held on May 30, 2008 at UMASS Amherst.

Joe Raelin holds the Asa S. Knowles Chair at Northeastern University, where he is also the Director of the Center for Work and Learning. The mission at the Center is to conduct research on methods of learning that integrate experience in the world with experience in the classroom. These methods are likely to deeply involve learners in the construction of useful knowledge. Hence, he is personally interested in creating communities of practice in which members are deeply committed to democratic and inclusive practices, dedicated to each other's development and devoid of impressionistic or inauthentic behavior and intentions.

His most recent book is called, Creating Leaderful Organizations: How to Bring Out Leadership in Everyone, and he is interested in knowing the results of any experiments people have taken in attempting leaderful practice in their own personal and professional environments. (adapted from his online profile at Amazon.com)

Joseph A. Raelin
The Knowles Chair of
Practice-Oriented Education
Northeastern University

NEFDC 2008 Fall Conference
Friday, November 14, 2008

"Accessing Academic Excellence: What Colleges Can Do
to Promote Student Success"

Our Keynote speaker will be Pedro Noguera, a professor in the Steinhardt School of Culture, Education, and Human Development at New York University. An urban sociologist, Noguera's scholarship and research focus on the ways in which schools are influenced by social and economic conditions in the urban environment. Noguera has served as an advisor and engaged in collaborative research with several large urban school districts throughout the United States. He has also done research on issues related to education and economic and social development in the Caribbean, Latin America and several other countries throughout the world. His most recent book is The Trouble With Black Boys …And Other Reflections on Race, Equity, and the Future of Public Education, (Wiley, 2008)

Keynote Speaker:
Pedro Noguera,
Steinhardt School of Education
at New York University

'Becoming the Media:' Experiential Learning through Media Criticism and Political Activism During National Presidential Elections

Julie Frechette, Ph.D.
Associate Professor, Department of Communication
Worcester State College

In accordance with Ira Shor's philosophy of participatory education, it is important to engage in experiential learning when embarking on a new course so that students can feel that they are part of the learning process rather than just recipients of pre-determined knowledge. This is especially important when teaching about the economic structures and politics of mass media, since students are usually invested in popular culture and have their own ideas, opinions, and orientations toward the subject matter. By engaging students in experiential learning exercises that are driven by problem-posing and social activism rather than by simple, pre-determined answers and didactic methods, we as teachers can begin to introduce critical thinking and social activism in a participatory way. This pedagogical framework has allowed me to develop experiential classroom exercises that promulgate critical thinking about the media, political engagement and social activism.

Arguably, one of the most dynamic events affecting college communities within and outside the classroom happens every four years during national presidential election cycles. As we have seen with the recent participatory surge during this 2008 national presidential race, today's youth are interested in engaging in the political process through participatory means that include dialogue and debate, exercising their right to vote, and making a difference in the world through the democratic process. By describing how to harness and transform such energy into the classroom, we will see how experiential learning leads to new pedagogical models that enable our students to engage in issues affecting their own generation.

Over the years, I have been determined to expand my units on media activism by connecting the issues covered in my Communication classes with current political, economic, and social events. This kind of learning has resulted in a renewed level of student awareness and empowerment that leads to what I believe is the essence of a strong education model of learning. As critical pedagogue Paulo Freire states, "schooling is primarily a form of social control in which the forms of pedagogy normalize subjects to take up places as skilled citizens in the given social order. Education serves as a form of potential transformation in which the forms of pedagogy allow for active subjects committed to self-and social empowerment." My model of experiential learning seeks to accomplish the latter.

Part of my approach toward making the learning experience in my courses empowering and transformative includes student involvement in projects and outcomes represented in the upper-tiers of knowledge offered through Bloom's Taxonomy . Each semester, I work diligently to motivate students through the use of examples, experiences, language, and ideas that they can relate to on a pragmatic level. I continually invite students to bring in relevant examples from pop culture to highlight the theories and concepts covered in class. For example, in Gender and Media, students are provided class time and space to select and listen to music performed by politicized female artists whose counter-hegemonic messages challenge the male dominated music industry. In Survey of Radio and Television, students bring in and create their own hip-hop magazines that related to our units on the music industry and fears about "race music" manifested through Jazz, Rock 'n' Roll, Rap, and Hip Hop. In Media Criticism, students bring in and create their own political cartoons, news stories, and You Tube clips to connect with our discussions of politics and media. Other active elements that I include in my teaching are small and large group assignments, classroom activities, debates, projects, workshops, collages, blogs, public service announcements, and presentations. While all involve various levels of experiential learning, I will offer two demonstrative examples of projects I have had success with during national presidential campaign cycles.

During the Campaign 2004 and 2000 election seasons, my students and I embarked upon an ambitious project entitled Bush, Kerry, and Third Party Candidates: Does it Matter? Using Media Criticism Over Cynicism to Engage in American Politics in 2004, and a similar project: Bush, Gore, and Third Party Candidates in 2000. In order to tap into issues that students were attuned to, and to directly connect the course material to their contemporary political landscape, students were assigned a group project in which they were responsible for 'becoming the media.' The paradigm to 'become the media' stems from an energized media reform movement to use new participatory technologies, modes and forum for political expression, such as Internet blogs, 'zines, video cameras, You Tube, and personalized web pages as a means to diversify perspectives located within corporately-controlled media.

To begin the project, students were responsible for sharpening their research skills and knowledge base of the political contenders and relevant issues in each election cycle. Rather than solely explore mainstream media sources and stories, which often focus on personalities and sound bites rather than substantive issues, students had to uncover facts about political candidates that had been marginalized in the mainstream news coverage by researching alternative, non-corporate media through the Internet. The goal was to provide a better understanding of each candidate's past voting record, experiences, platforms and proposals in running for office, and to see how candidates' positions related to their own. Beyond gaining a stronger knowledge base, students were directly involved in application and synthesis through the creation of their own media forum, one that incorporated their knowledge and transformed it into a public press conference to take place in the campus student center. The intensiveness and participatory nature of the learning venture increased as students embarked on an experientially-based project that involved 'becoming the media.' This process included making posters to publicize the event, writing speeches to present in the exhibit area of the student center, and sending out press releases to local media. The press conference was predicated on summarizing key research findings through individual and group speeches

to be given at a podium with microphone in a well-trafficked area of the campus. Students defined which political issues were most important to them, and judged whether or not the political contenders fulfilled their expectations. Students also synthesized the information they had researched in order to become better informed, and to inform their peers, about conventions within mainstream news reporting that obscure relevant facts needed for political awareness and social engagement.

Up to and during the event, there was a visible collective energy that occurs through public performances and events. The students and I had rehearsed our speeches in class, adapted them through critique, and put final touches on our delivery, props, posters and signs. However, classroom learning had not prepared us for the experiential learning we were about to embark upon. Our collective excitement escalated as we watched the press from the local Worcester television news station set up their cameras, and journalists from the local press, including the Worcester Telegram and Gazette, engage in pre-event interviews. Audience members started streaming in, and passerby students, faculty and administrators took notice. I began by welcoming attendees and explaining the nature of the project we had engaged in throughout the semester. As I observed my students getting ready to share their presentations with the crowd, I felt a deep sense of pride. While the students had not yet spoken, the transformative nature of the exercise was already visible. No longer donning typical campus sweats, the students looked distinguished, mature, and engaged in their professional dress and appearance. Nervous glances among classmates were met with reassuring smiles as we all felt the power of being in the moment together. Through every person's contribution, we realized that we had built a strong sense of community through the collective whole of our shared experiences.

Students took turns behind the podium articulating their findings, analysis, and vision for the political campaign through their eyes. As students spoke into the microphone, the reverberation of their voices was felt viscerally. Their convictions, commitment and passion were strong and evident. As audience members cheered and laughed throughout the speeches, we were assured that we really were changing people's political perspectives and consciousness. We knew at that moment that political participation at its best came from this sense of engaged learning and collective sharing. This was no longer a classroom exercise; it was a transformative experience. Students had become social actors—they had 'become the media'—rather than passive viewers of someone else's news, analysis and framing.

Perhaps the best learning outcome of the project emerged from the press coverage of the event. Not only had students been able to directly apply what they had learned about political media coverage, news conventions, and narrative framing through their own political forum, they were also afforded a unique opportunity to see how the press covered their political press conference. By carefully deconstructing and analyzing the news narrative about the event from the perspective of the newspaper reporter, many students were incensed by the selective coverage of the event, including the lack of adequate and accurate coverage of the diversity of views that had been reflected in their speeches, particularly on the subjects of the War in Iraq, social and income equity, human rights and the environment. Through debriefing, students were able to discover for themselves how dominant news narratives and story-telling conventions affect the interpretation of events, thereby delimiting the emergence of non-dominant perspectives. Alas, students had observed and personally experienced the partiality of media coverage through debriefing. As mimesis is no substitute for the 'real thing,' lecturing on this topic would not have yielded the same results as experiencing it. Given the success of the project, I have offered workshops and presentations at a variety of Communication conferences, as well as professional development conferences, on how to connect student learning with politics and empowerment.

In addition to this project, I have also created experiential learning exercises for students in specialized content areas. For example, I created a special topics course entitled, Critical Analysis of News in which students analyzed news media coverage of the tragic events of September 11th by contrasting national and international perspectives within a socio-political and economic framework. In this class, students created 'zines—magazines with original art, poetry, and prose in a unique layout—that included student-based questions and perspectives about the post-9/11 political response by the Bush administration and the outside world. In the course Gender and Media, my students participated in a video project whereby they documented their knowledge about the course subject, as well as their learning goals at the beginning and end of the semester. The culminating documentary video emphasized how their expectations had been shaped by the course, and what they hoped to accomplish with their newly learned knowledge. I have incorporated other current events, such as Hurricane Katrina, into Media Criticism by encouraging students to write and report their own perspectives about the governmental response to the catastrophe through an experiential learning activity on narrative news framing.

When sharing my pedagogical strategies with my colleagues, several questions arise: "Doesn't experiential learning take away from the time you have to cover the course material?" "Aren't students more likely to slack off when they are responsible for projects?" and "How hard is it to create such activities?" Over the years, I have found that experiential learning not only compliments the course content; it makes it come alive. The energy that comes from student engagement in projects and events makes it more likely that students will retain the knowledge and experience of the course. In all of these learning ventures, the process and outcome embody all of the tiers of learning found within Bloom's taxonomy of cognitive development. Not only does experiential learning allow our students to become eager and committed to investigating subjects and issues, it also allows them to draw from issues they care deeply about to further their learning, self-transformation, and participation as citizens. In my courses, students have repeatedly expressed gratitude for having a safe-space to engage in issues

directly related to their lives. As one student wrote in an email to me after the semester: "I feel empowered with the knowledge I have gained. I am motivated to learn more and be more active in my daily life" (personal communication, June 12, 2007).

Finally, it usually takes little effort to include experiential learning in our current courses. By remembering what it was that turned us on to the subject areas that we teach, and through creativity, imagination, and improvements, we can balance the objectives of teaching core concepts and applying them in powerful ways. This fall semester, with the 2008 presidential election to take place, I am going to add a new dimension to the student-lead media campaign press conference. Rather than simply require students to summarize their research and reflections into a final paper, I plan on encouraging students to share their findings with the class, their peers, and society by creating their own Internet blogs summarizing key findings. Students will thus be able to use rich multimedia to express themselves through independent analysis, links to related research sites and resources, political cartoons, You Tube clips related to the content areas being researched, and links to social, political, and educational organizations actively seeking to address the problems raised within their research projects.

Perhaps the better question we need to pose about experiential learning is "what do we hope to achieve as educators in our classes." The scholarship of teaching is clear in its answer: learning should not take place in an academic vacuum; rather it can and should be shared with the outside world. Pedagogically, experiential learning encourages students to learn that they can become agents of change by using their knowledge, perspectives and voices through social discourse and by 'becoming the media.'

Over the last 15 years of teaching in my discipline, I am continually reminded that the best learning comes from activities and events that encourage students to become invested in their own lives, and their generation's future within a global context. As new technologies and media have eroded boundaries and increased the diversity of voices and experiences spatially and temporally, our pedagogies should reflect new ways of learning and social engagement. We need not venture alone in this quest. Professional organizations such as NEFDC serve as the foundation for experiential learning by bringing educators and resources together to encourage interdisciplinary creativity among educators. The time has come for us to reshape our curricula to incorporate new paradigms of experiential learning as a way to bridge knowledge that comes from the classroom with real-life praxis.

i Shor, I. (1992). *Empowering education: Critical teaching for social change*. Chicago: University of Chicago Press.
ii Freire, Paulo (1980) *Pedagogy of the Oppressed*. New York: Continuum.
iii Bloom, B.S., et al. (1956). *Taxonomy of educational objectives: Cognitive domain*. New York: David McKay.

Connecting With Others

There are two dominant national organizations—POD and NCSPOD--of people who do faculty development work. Both have excellent fall conferences, with many sessions appropriate for faculty members interested in professional development.

The Professional and Organizational Development (POD) Network in Higher Education is primarily four-year college and university professionals. Link up with POD at www.podnetwork.org. POD also has a very active and informative listserv.
The National Council for Staff, Program and Organizational Development is an affiliate council of the American Association of Community Colleges, and is primarily two-year college professionals. Link up with NCSPOD at www.ncspod.org.

WEAVING PATTERNS OF PRACTICE

**2008 Conference Information
The Professional and Organizational Development (POD) Network
& The National Council for Staff, Program and
Organizational Development (NCSPOD)**

**2008 POD Network/NCSPOD Conference
October 22-25
The Nugget Resort
Reno, Nevada, U.S.A.**

Our partners in the Spring conference also offer the following two conferences:

MARTHA'S VINEYARD SUMMER INSTITUTE
on EXPERIENTIAL EDUCATION
June 22-26, 2008, or June 27-July 1, 2008

The Institute focuses on strategies to strengthen your campus' efforts to promote learning outside and inside the traditional classroom through cooperative education, service-learning, faculty/undergraduate research, community-based research, study abroad, academic internships, student leadership development, and other related programs. Please see http://www.mvsi.neu.edu/ for more information.

Our Spring conference co-sponsors are also holding a conference in Spain

THE FIRST CGU - WACE JOINT INTERNATIONAL SYMPOSIUM
&
WACE'S SEVENTH INTERNATIONAL SYMPOSIUM ON WORK INTEGRATED LEARNING

CHALLENGING HIGHER EDUCATION:
DEVELOPING ENTERPRISING GRADUATES
FOR A CHANGING WORLD OF WORK

MADRID, SPAIN
3-5 DECEMBER 2008

HOSTED BY UNIVERSIDAD COMPLUTENSE DE MADRID IN CONJUNCTION WITH UNIVERSIDAD POLITÉCNICA DE MADRID

You can find more information at: http://www.waceinc.org/

Virtual Worlds: Engaging Students Beyond the Classroom Through Pedagogy and Course Design

*Elaine Garofoli and Elizabeth McCarthy,
Marlboro College Graduate Center*

As we look at how and what students are being taught today, it is not much different than when John Dewey wrote the following in Experience & Education in 1938;

"*Learning here means acquisition of what already is incorporated in books and in the heads of the elders. Moreover, that which is taught is thought of as essentially static. It is taught as a finished product, with little regard either to the ways in which it was originally built up or to changes that will surely occur in the future. It is to a large extent the cultural product of societies that assumed the future would be much like the past, and yet it is used as educational food in a society where change is the rule, not the exception.*" (Dewey, 1938)

Change is the rule, as it was in 1938, but today students can no longer be sustained by static "educational food" where teaching is nothing more than providing information to students.

In a world where anyone with Internet access can find information about anything, mere knowing is no longer enough, "It's learning in an age of change, where what was true today ceases to be true tomorrow," (Downes, 2008, par.43) and what is "in books and in the heads of elders" are irrelevant unless applied and incorporated into a larger scheme by students in a way that makes sense to them and with the technology [emphasis by the authors] which they perceive as relevant.

Unfortunately, today "the gap between students' perception of technology and that of faculty continues to widen."(Horizon Report, 2008, pg. 6, ¶1) Can we, as teachers adapt to an exponentially changing world and make formal education relevant to students of today? Can we "change the menu" and make the experience of learning more robust, sustaining, and meaningful?

Marc Prensky identifies students who grew up using computers as "Digital Natives…a new generation with a very different blend of cognitive skills than its predecessors," (Prensky, 2001) as opposed to Digital Immigrants, those of us who adopted digital skills as technology evolved, and who are measurably slower and inflexible in terms of digital competence.

Today's students – K through college – represent the firs*t generations to grow up with this new technology. They have spent their entire lives surrounded by and using computers, videogames, digital music players, video cams, cell phones, and all the other toys and tools of the digital age. Today's average college grads have spent less than 5,000 hours of their lives reading, but over 10,000 hours playing video games (not to mention 20,000 hours watching TV). Computer games, email, the Internet, cell phones and instant messaging are integral parts of their lives. It is now clear that as a result of this ubiquitous environment and the sheer volume of their interaction with it, today's students* think and process information fundamentally differently from their predecessors. These differences go far further and deeper than most educators suspect or realize. "Different kinds of experiences lead to different brain structures, " says Dr. Bruce D. Berry of Baylor College of Medicine…. it is very likely that our students' brains have physically changed – and are different from ours – as a result of how they grew up. But whether or not this is literally true, we can say with certainty that their thinking patterns have changed.* (Prensky, 2001, 3)

As Digital Immigrants, we levy a great disservice upon our Digital Native learners by only teaching based on our preferences of learning and thinking. How can the formal learning environments of school be adapted to the informal learning competencies of the Digital Native, or as posed by David Gibson in his presentation "Playing to Learn," how does one make serious work and learning of student's play? Gibson identifies games, (Gibson, 2006, slide 2) simulations and virtual worlds as the "new playing field" where the concept of "fun" and "serious learning" coexist within a new "tech-ecology" of community centered, learner centered, knowledge centered, and assessment centered learning environments.

Gibson's new playing field, as mentioned above, is further defined by Vanassa Dennen and Robert Branch in the report Considerations for Designing Instructional Virtual Environments: "virtual reality is an immersive interactive medium that manipulates the senses in order to provide users with simulated experiences in computer-generated worlds." (Dennen & Branch, 1995, ¶1) They concluded that "virtual reality is appropriate for some educational situations… requiring experience in particular settings…especially to present spatial or abstract information because of the advantages of sensorial feedback." (Dennen & Branch, 1995, pg. 105) Well designed instructional experiences in virtual immersive learning environments can accommodate the Digital Native's learning needs by actually using the skills and competencies they've acquired over a lifetime of digital interactions.

Multi-User Virtual Environments (MUVEs) can provide a place where formal and informal learning merges, where real life and virtual life cross over, and where formal education can adapt to meet the natives on their own turf. One such MUVE is the currently popular immersive world of Second Life (SL), a digital 3D virtual platform created by Linden Labs where users are responsible for creating everything within this virtual world, including one's appearance. In virtual worlds, each user is represented by an avatar, a digital animated character which is self designed and created. Some choose to create themselves to look exactly as they do in real life, others may look like furry animals, and others still, some kind of cross between human and animal.

The ability to engage "in-world" with and through one's avatar is quintessential to the SL experience. (Francis, 2006) Unlike flat, two dimensional (2D) learning management systems such as Blackboard, WebCt, or Moodle, 3D virtual learning environments like SL offer a unique user experience that can parallel the real world. Consequently, ideas learned within the environment "should be more readily recalled and applied within the corresponding real-world environment." (Dalgarno, 2002, ¶14)

Pierre Dillenbourg from the University of Geneva (Dillenbourg, 2000) describes the following key elements of an optimal virtual learning environment:

- *Educational interactions occur in the environment, turning spaces into places.*
- *The information/social space is explicitly represented. The representation varies from text to 3D immersive worlds.*
- *Students are not only active, but also actors. They co-construct the virtual space.*
- *Virtual learning environments integrate heterogeneous [various] technologies and multiple pedagogical approaches.*
- *Most virtual environments overlap with physical environments.*

The key elements of a virtual learning environment as outlined by Dillenbourg clearly align with the principles of experiential education as proposed by the Association for Experiential Education: (http://www.aee.org/customer/pages.php?pageid=47)

- *Experiential learning occurs when carefully chosen experiences are supported by reflection, critical analysis and synthesis.*
- *Experiences are structured to require the learner to take initiative, make decisions and be accountable for results.*
- *Throughout the experiential learning process, the learner is actively engaged in posing questions, investigating, experimenting, being curious, and solving problems, assuming responsibility, being creative and constructing meaning.*
- *Learners are engaged intellectually, emotionally, socially, soulfully and/or physically. This involvement produces a perception that the learning task is authentic.*
- *The results of the learning are personal and form the basis for future experience and learning.*
- *Relationships are developed and nurtured: learner to self, learner to others and learner to the world at large.*
- *The educator and learner may experience success, failure, adventure, risk-taking and uncertainty, because the outcomes of experience cannot totally be predicted.*
- *Opportunities are nurtured for learners and educators to explore and examine their own values.*
- *The educator's primary roles include setting suitable experiences, posing problems, setting boundaries, supporting learners, insuring physical and emotional*

safety, and facilitating the learning process.
- *The educator recognizes and encourages spontaneous opportunities for learning.*
- *Educators strive to be aware of their biases, judgments and pre-conceptions, and how these influence the learner.*
- *The design of the learning experience includes the possibility to learn from natural consequences, mistakes and successes.*

As of May 2007, there were 170 universities, colleges and schools with a virtual presence in Second Life. (Collins, 2007) Note however, that this does not include the many more educators who do not own virtual land but are using Second Life for classes and activities with their students. Second Life provides opportunities for meaningful and engaging opportunities for learning as articulated by both the tenets of experiential education and virtual learning environments, but the explosion of use is still in the early stages. While the nature of the Second Life 3D platform allows for, and even calls out for a different way of teaching, to date there has been a tendency to impose 2D passive teaching methods such as lectures and slide presentations. Avatars typically sit in classrooms with chairs in rows and listen to or view multimedia presentations. In other words, instructionist teaching, virtual world style.

We seem to be in-between two educational paradigms at this point in the use of educational technology. However, there are educators such as Bill Moseley, Professor of Computer Studies at Bakersfield College and Adjunct Faculty at Pepperdine University, who believe that "Second Life has become a proving ground for the idea that education should be student-centered, dynamic, and most of all - fun." (Moseley, 2007) At the Best Practices in Education Conference in Second Life in May of 2007, Moseley raised the following questions,

Why do we insist on bringing real life limitations where they do not exist? Why do we build spaces with roof and walls in a place with no inclement weather to be protected against? Why do we import our old bad teaching habits like lecture and death by Power Point to a medium with so much to offer in the way of autonomy and interactivity? Why don't we practice what we know about active constructivist learning when we have such open and conducive settings in which to do it?

Moseley's students at Pepperdine created an online world in Second Life to reflect themes in Daniel Pink's book *A Whole New Mind*, and later met with the author in-world (within Second Life) to show him their works and to have a dialogue with him synchronously, or in real time. In Moseley's course the students are the creators, immersed in the experience of building a world based on *their* interpretation, "co-constructors of the virtual space." Students have ownership and control of their learning, they "are engaged intellectually, emotionally, socially, soulfully and… physically" (Moseley, 2007) with authentic learning tasks. Moseley refers to the project as "learning through the engagement of difficult activities that have elements of fun". Seymour Papert (2002) would call this "hard fun".

Other examples of best practices in teaching and learning in Second Life include the works of Sarah (Intellagirl) Robbins, a frequent user and advocate of Second Life who highlights the premise of "Pedagogy First- Technology Second, Students First – Universities Second," and Ken Hudson, e-learning facilitator at Loyalist College, Canada. At the same May 2007 Best Practice Conference that Moseley attended, Hudson cited his own successes and failures in Second Life, including a small group discussion course on "Topics in Journalism". In this particular SL course Hudson attempted a live streaming video feed of a guest presenter, but technical difficulties caused some users to lose audio. His initial disappointment with the technology was soon relieved when he realized that the students weren't annoyed in the least and had been helping one another by transcribing what was said. Instead of a failed teaching experience, what he saw instead was the manifestation of a flexible,

adaptable and supportive learning community. Hudson's recommendation to educators is to be innovators, "start small with modest projects…anticipate delays, miscues, and disappointments… but do it anyway".

Given the force of technological change and the needs of today's students, teachers can no longer feed students the same old "educational food." As in experiential education, a constructivist and active learning paradigm is best suited for learning today. The potential of 3D virtual worlds like Second Life for teaching and learning is exciting and only limited by one's imagination. However, it is essential to "unlearn our old ways of thinking and not simply recreate preexisting models of education. If we want to teach biology, why build a virtual classroom with desks and a blackboard in Second Life when we could build a whole interactive human cell?" (Livingstone et al, 2006, pg. 8)

References:
Collins, C (2007, May, 25). Playing BPE- Fleep Tuque. Retrieved March 17, 2008, from SLCN.TV Second Life Cable Network Web site: http://www.slcn.tv/best-practices-in-education

Dalgarno, B (2002, 9). The Potential of 3D Virtual Learning Environments: a constructivist analysis. Journal of Instructional Science and Technology (e-JIST), 5, Retrieved March 5, 2008, from http://www.usq.edu.au/electpub/e-jist/docs/Vol5_No2/dalgarno_frame.html

Dennen, V., Branch, R., (1995, 10). Considerations for designing instructional virtual environments. ERIC, Retrieved February 28, 2008, from http://www.eric.ed.gov/ERICDocs/data/ericdocs2sql/content_storage_01/0000019b/80/14/5b/d8.pdf

Dewey, J, (1938). Experience and Education. New York, New York: Collier Books.

Dillenbourg, P (2000). Virtual learning environments . Retrieved March 1, 2008, from TECFA (Technologies de Formation et Apprentissage) Overview Web site: http://tecfa.unige.ch/tecfa/publicat/dil-papers-2/Dil.7.5.18.pdf

Downes, S (2008, 02, 18). The Reality of Virtual Learning. Retrieved February 25, 2008, from Half an Hour Web site: http://halfanhour.blogspot.com/2008/02/reality-of-virtual-learning.html

Francis, R (2006). JISC Innovating e-Learning 2006: Transforming Learning Experiences online conference. Retrieved March 15, 2008, from Towards a Theory of a games based pedagogy Web site: http://64.233.167.104/search?q=cache:0BkkW2bgpCMJ:www.online-conference.net/jisc/content/Francis%2520-%2520games%2520based%2520pedagogy.pdf+francis+game+based+learning&hl=en&ct=clnk&cd=1&gl=us&client=firefox-a

Gibson, D (2006, 11). Playing to Learn: Games, simulations and virtual environments in online learning. Retrieved March 12, 2008, from SimSchool Web site: http://simschool-resources.edreform.net/resource/18896

2008 Horizon Report Released at EDUCAUSE ELI conference. Retrieved February 28, 2008, from The New Media Consortium Web site: http://www.nmc.org/horizon/

Livingstone, D, Kemp, J, (2006). Proceedings of the Second Life Education Workshop, Part of the Second Life Community Convention (1st, San Francisco, California, August 18-20, Online Submission.

Moseley, B (2007, May 25). Playing BPE - Pirate Shipman [Video]. Retrieved February 27, 2008, from SLCN.TV Second Life Cable Network Web site: http://slcn.tv/bpe-pirate-shipman

Papert, S (2002). Works by Seymour Papert, Ph.D. Retrieved March 15, 2008, from papert.org Web site: http://www.papert.org/articles/HardFun.html

Prensky, M (2001). Mark Prensky. Retrieved February 12, 2008, from Digital Natives, Digital Immigrants Web site: http://www.marcprensky.com/writing/Prensky%20-%20Digital%20Natives,%20Digital%20Immigrants%20-%20Part1.pdf

Surfing Second Life, TechLearning, Lindsay Oishi http://www.techlearning.com/story/showArticle.php?articleID=196604483

What is Experiential Education? Retrieved March 2, 2008, from The Association for Experiential Education (AEE) Web site: http://www.aee.org/customer/pages.php?pageid=47

Playing with Ideas
Engaging Students in the Electronic Environment:
Your Learning Environment is a Playground

Christine L. Holmes, Ed.D.
and Susan K. Eliason, Ed.D.

The Anna Maria College (AMC) faculty is a teaching faculty whose primary focus and aim is the development and success of the student. The focus of scholarship at the college is therefore on teaching and learning, whether face to face or online.

After attending the Chicago WebCT conference in July 2006, we expressed interest in further developing our skills in the online teaching and learning environment. We were invited by the AMC Dean of Academic Affairs to develop a faculty certification training model for the WebCT/Blackboard Learning System. The goals of the faculty certification training are to assure consistency, quality and integrity in our academic programs, and provide full-time and adjunct faculty members the opportunity for enhanced and meaningful interaction focused on teaching and learning.

We developed the course and trained the first group of faculty during the month of December 2006, and have taught the course four times to

date with the technical support of our WebCT/Blackboard Administrator. This article describes the rationale, planning process, implementation, assessment, and future goals for this ongoing professional development experience.

Rationale

Researchers suggest that orientations to teaching may be classified on a continuum. At one end is a content orientation in which the teacher is a director. At the other end is a learning orientation in which the teacher is a facilitator. The primary difference involves the approach to teaching with the teacher utilizing a content focused orientation and the teacher adopting a learning focused orientation (Barr & Tagg, 1995; Burroughs-Lange, 1996; Gow & Kember, 1993; Kember & Kwan, 2000; Samuelowicz & Bain, 2001; Stark, 1988; Trigwell & Prosser, 1996a).

College teachers come to teaching with personal experience and sub-

ject expertise, yet many of these teachers have not received any systematic, pedagogical preparation for their teaching. They developed conceptions about teaching based on their experiences as a student or novice teacher, and may have established an orientation to teaching that could limit the way they provide instruction and assess student learning (Holmes, 2004).

Pasquale and Sorcinelli (2007) propose a paradigm for faculty development using a continuum of the scholarship of teaching and learning. They define the scholarship of teaching and learning as "The dissemination of outcomes and enduring permanent products (e.g. publications) of scholarly teaching in ways that promote reflective practice and critique, significant contributions to practices, and innovation in the professional field" (slide 9).

As we developed the course we realized that we would need to be careful to consider faculty members' orientation to teaching, their personal experiences with teaching and learning, and subject expertise. Our plan was to create a community learning environment where faculty could work together, as both students and program designers. The focus was to explore technology, assessment strategies, pedagogy, reflective teaching and learning, and innovative practices.

Planning Process

At Anna Maria College, much work is done through committees. The Electronic Learning and Teaching committee reviewed and approved the faculty certification course and then recommended action to the Dean of Academic Affairs. The committee decided the certification course should focus on technology (30%) and pedagogy (70%). It included a general WebCT/Blackboard orientation, discussion of terminology, best practices in e-learning and teaching, and mentoring and coaching. The faculty who participated in the course did so in two roles; student and course designer. The WebCT/Blackboard course and syllabus were developed to support the following objectives for participants:

1. Develop syllabus using a template and posting the syllabus to WebCT
2. Discuss effective teaching and learning strategies to:
   a. Gain attention and inform learners of the objectives
   b. Activate prior knowledge
   c. Present content in a 'chunked' format (breaking down content into areas of focus)
   d. Provide learning guidance (case studies, graphs, pictures, & analogies)
   e. Practice skills to guide learners in their practice of new information
   f. Providing specific and immediate feedback
   g. Demonstrate mastery of subject (portfolio, project, papers)
3. Utilize a variety of questioning strategies (open-ended, clarifying, values, connective, relational, synthesizing, and application)
4. Practice course design in the WebCT environment
   a. Design homepage
   b. Create course content
   c. Facilitate a threaded discussion
   d. Use a chat room for class discussion
   e. Assess students (Quizzes and exams AND Assignments and grade book)
5. Discuss research based practices to include the importance of peer review.

Since we began our teaching careers as early childhood educators, we value understanding the learner and supporting active learning. In addition to the goals and objectives outlined above, our goal was to build community and to encourage learning through play.

Implementation

"The truth is that when we scrub joy and comfort from the classroom, we distance our students from effective information processing and long-term memory storage. Instead of taking pleasure from learning, students become bored, anxious, and anything but engaged" (Willis, 2007). Our challenge was to encourage others to learn how to play electronically.

The primary focus of the implementation module of the training concentrated on seven principles for good practice in undergraduate education (Chickering & Gamson, 1987). We developed metaphors for each principle with an overlying theme of a playground. Examples of what each principle might look like in a teaching and learning environment are provided along with suggestions for practice in the electronic environment. We encourage teachers to connect with their inner child, use their imaginations, and let their creative spirits soar as we share the following metaphors based on these seven principles.

Building relationships with students is a see saw that requires a balance of interaction between teachers and students. Through caring, listening, and empathetic understanding, teachers begin to know their students and develop relationships that enhance motivation and involvement and provide the foundation for social and intellectual play. Relationships can be built in the electronic environment through a Welcome Page, personal introductions in Discussions, and through Course Mail.

Building membership or community is a group game that requires reciprocity and cooperation. Through socialization, membership, reciprocity, cooperation, and collaboration, teachers and students share ideas and respond to others' reactions. Community can be established in the electronic environment through Discussions and Team Projects.

Active learning is interaction with natural materials that provides novelty, and promotes information transmission. Through facilitation, teachers help students develop habits of mind that include the ability to think creatively and critically. Teachers and students share and reflect on new learning, relate past experiences, and apply new learning to daily life. Active learning is easily observed in the electronic environment through Discussions.

Assessment is tree climbing that requires timely and frequent, meaningful feedback. Students have frequent opportunities to: perform; receive suggestions for improvement; have chances to reflect on learning and to determine what still needs to be known; have opportunities to self-assess existing knowledge and competence. Assessment in the electronic environment is most effective when students are encouraged to submit drafts of their work for peer and/or teacher feedback.

Time on task is dancing that involves guided practice, pacing, organization, and time management. Teachers break large amounts of content into smaller chunks of information to guide students toward the development of time management strategies and making meaning of prior knowledge. Time on task in the electronic environment is organized in Course Content where components of content are broken down into chunks of information (objectives, pre-assessment, guided reading questions, graphic organizers for reading, post-assessment, and resources).

High expectations is kite flying that involves clearly communicated goals based on standards and professional dispositions. Teachers use high standards and models that are concrete, real, and relevant. Students develop intrinsic motivation and learn that high expectations can become a self-fulfilling prophecy. High expectations are demonstrated in the

electronic environment through assignments where teachers set the standard for student outcomes.

Promoting equity is selecting a ball and requires teachers to consider multiple intelligences, learning styles, and to offer choices. Teachers foster an intellectual openness that provides students with the opportunity to work at their own pace, learn ways that work for them, and learn new ways that may not come so easily. Promoting equity is demonstrated in the electronic environment throughout the entire course. Course design includes consideration of the styles of all learners.

Some school cultures inhibit novelty, joy, and enthusiasm in classrooms. Neurological science proves that stress-free and pleasurable classrooms are linked with learning (Willis, 2007). As reflective practitioners, we encourage faculty to play with ideas and discover how to promote deep, meaningful, and creative learning through student engagement.

Assessment

We asked for feedback at the end of the certification training. Feedback from course completers included these responses to the following questions:

What did you enjoy most about this experience?
• The additional WebCT ability and the interaction with everyone.

• I do not have a teaching background. My background is computer technology. I enjoyed reading and learning more about how to design a course, different types of learners, how to assess learning, etc. I also enjoyed reading comments in the discussions. I learned quite a bit there and picked up some good ideas.

• I liked being able to share ideas with colleagues and experience what it is like to be a student on the other end of the computer. It helped me see obstacles and emphasized the importance of clarity when you are designing your course.

• Honestly, the most significant learning I did was to realize how similar to a traditional class on-line classes are. I did lose sight of the best practices in teaching that I know because I was caught up in the technology a bit. Balancing traditional and on-line in a hybrid course effectively.

• I really enjoyed the interaction with my colleagues. The discussions were very enjoyable and it was good to "bounce" ideas off my colleagues. The PowerPoint slides and other resources were very helpful and provided criteria and guidelines for a quality experience for students.

• Developing a greater sense of literacy and confidence in the use of the technology and the chance to communicate with such a wide array of colleagues on a topic of such mutual pedagogical importance.

How might you change your teaching based on this course?
• Although I have been using on-line components in my courses, I think I will expand on these components, especially the discussion function, which would both enhance and modify classroom discussions.

• I often feel that I would like to have more discussion in my courses, but particularly in Microbiology, I need to cover a certain amount of course content. Discussion always seems to put me behind even more than I usually am. I can see the usefulness of WebCT for these discussions.

• I don't think it will change the content, but I think I can 1) present my course in a more organized manner to the students, 2) link assignments and evaluation tools more clearly and more closely to content and objectives. This means a "tighter" course, I think.

• I have changed the course objectives to be measurable.

• I will format my module presentations in a more formal format to upload. This would benefit an on-line design as well as a traditional course format.

• This course helped me to think about all aspects of layering and planning a course. I really like the calendar feature and will probably use it to plan the schedule for all my courses, not just online courses.

Future Goals

With a goal for continuous improvement and excellence in teaching, we plan to continue offering the WebCT/Blackboard certification course and eventually include the development of a Faculty Certification Instructor Guide, the development of a formal mentoring process (train the trainer model), and a voluntary peer review process for courses designed with an electronic component. After developing, teaching, and evaluating this professional development experience, we have realized that there is a need to continue conversations about effective teaching practices and are currently writing a grant for a Center for Teaching Excellence to serve this purpose.

Conclusion

The culture of Anna Maria College is to value reflective practices that result in systematic assessment, quality improvement, and openness to growth. The WebCT/Blackboard faculty certification course serves to recognize, develop, implement, and evaluate innovative and effective teaching and learning strategies that foster student engagement.

References

American Psychological Association. (1997, November). Learner-centered psychological principles: A framework for school reform and redesign. Retrieved October 23, 2007, from American Psychological Association Web site: http://www.apa.org/ed/cpse/LCPP.pdf

Barr, R.B. & Tagg, J.(1995). From teaching to learning – a new paradigm for undergraduate education. Change, 27(6), 12-28.

Burroughs-Lange, S. (1996). University lecturer's concept of their role. Higher Education Research and Development, 15(1), 29-49.

Chickering, A. W., & Gamson, Z. F. (1987, March). Seven principles for good practice in undergraduate education. American Association for Higher Education Bulletin, 39, p. 3-7.

Gow, L., & Kember, D. (1993). Conceptions of teaching and their relationship to student learning. British Journal of Educational Psychology, 63, 20-33.

Holmes, C. L. (2004). Holmes, C. L. (2004). College teachers' orientation to teaching: A comparative case study (Doctoral. Unpublished doctoral dissertation, University of Massachusetts, Amherst, MA. (UMI No. 3152707)

Kember, D., & Kwan, K. (2000). Lecturers' approaches to teaching and their relationship to conceptions of good teaching. Instructional Science, 28(5-6), 469-490.

Kuh, G. D. (2007, November). The classroom: The foundation for student success. (PowerPoint Presentation.) Presented at the New England Faculty Development Consortium Development Consortium, Worcester, MA.

Pasquale, S. & Sorcinelli, M. D. (2007, December). The scholarship of teaching and learning and faculty development: How it benefits faculty and the institution (PowerPoint Presentation) Presented at the New England Association of Schools and Colleges 122nd Annual Meeting and Conference, Boston, MA.

Samuelowicz, K., & Bain, J.D. (2001). Revisiting academics' beliefs about teaching and learning. Higher Education, 41, 299-325.

Stark, J. (1988). Reflections on course planning. Faculty and students consider influences and goals. From the program on curricular integration and student goals. (Report No. NCRIPTAL-TR-88-C-002.0). Ann Arbor, MI: National Center for Research to Improve Postsecondary Teaching and Learning. (ERIC Document Reproduction Service No. ED316067)

Trigwell, K., & Prosser, M. (1996a). Changing approaches to teaching; A relational perspective. Studies in Higher Education, 21(3), 275-284.

Willis, J. (2007, Summer). The neuroscience of joyful education. Educational Leadership, 64. Retrieved October 11, 2007, from Association for Supervision and Curriculum Development Web site: http://www.ascd.org/portal/site/ascd/menuitem.459dee008f99653fb85516f762108a0c/

Meet Our New Board Members:

Naomi Migliacci,
Southern CT State University

Naomi is an Assistant Professor of Reading at Southern Connecticut State University. She has developed programs for school districts and universities in the US and around the world. Her focus is designing instruction that works with diverse learners. Through her association with the Educators for Social Responsibility in Cambridge, MA, Naomi continues to be an advocate of school reform and redesign for all learners. She is co-editor of Inclusive Pedagogy for English Language Learners: A Handbook of Research-Informed Practices.

Cindy Tobery,
Dartmouth College

Cindy is the Associate Director at the Dartmouth Center for the Advancement of Learning. She develops and facilitates programs primarily for graduate students and postdoctoral fellows. Cindy previously created professional development workshops for Yale's Women Faculty Forum, Hunter College's Gender Equity Project, and Princeton's McGraw Center for Teaching and Learning. She would like to be on the board in order to increase her contribution to this community. In addition to her passion for developing future faculty and enthusiasm when engaged in collaborative work, Cindy will bring her experience in program planning, website design, and newsletter editing to the NEFDC board.

Deborah Clark,
Quinnipiac University

Deborah has been a professor of biology at Quinnipiac University for the last fifteen years. In 2006, she was appointed the founding director of Quinnipiac University's new Faculty Collaborative for Excellence in Learning and Teaching. In this position, she is responsible for running seminars on Excellence in Education and the Technology Users Group, supporting the University's Writing Across the Curriculum program and Service Learning initiatives, and starting a New Faculty Mentoring Program. In running for the NEFDC Board, she hopes to forge new ties with members interested in discussing new teaching and scholarship ideas and the challenges of running and sustaining faculty development programs and conferences.

Joseph Weiss, Bentley College

Joe Weiss is Professor of Management at Bentley College where he teaches the MBA leadership course and business ethics. He has served as chair of the national Academy of Management Consulting Division and is currently co-chair of the IT/Project Management track at HICSS (the Hawaiian International Conference on System Sciences). He is a Fulbright Senior Program Specialist and is author of books in organizational behavior, managing change, project management, and business ethics.

Molly Letsch, UConn

Molly Letsch is the new grad liaison for the NEFDC. She is currently a graduate student at the University of Connecticut and would like to build a network of New England graduate students interested in developing their teaching and learning skills by starting and maintaining a graduate student listserv.

Students as *Starry Messengers*: Curricular Engagement and the International Year of Astronomy

Kristine Larsen, Physics and Earth Sciences Dept,
Central Connecticut State University

The Invention

In October 1608, the States General of the Netherlands considered the patent application of spectacle-maker Hans Lipperhey for a device which would make distant objects appear closer. Although the patent was denied, Lipperhey's invention – now known as the telescope – forever changed our world. Originally used by sailors, word of the device made its way to Italy, where Galileo Galilei perfected the design and turned the lenses skyward in June 1609. By that Fall he began making astronomical observations, and over the next few years discovered the phases of Venus, four largest moons of Jupiter, and explored the structure of the Milky Way, lunar craters, and sunspots. His first published observations appeared in March 1610 as Sidereus Nuncius, The Starry Messenger. Four hundred years later, the young and the young at heart continue to marvel at the wonders of the heavens through telescopes of various sizes and designs. Public observatories, such as the Copernican Observatory and Planetarium at CCSU, introduce the night sky to the general public, and in the process kindle that spark of interest which will lead to the next generation of astronomers and astronomy educators.

In celebration of the 400th anniversary of Galileo's landmark observations, the International Astronomical Union (IAU) and the United Nations have declared 2009 to be the International Year of Astronomy (IYA). Two of the Global Cornerstone Projects of the IAU program are the Galileoscope initiative, which seeks to actively engage and interest 10 million people world-wide by giving them their first views through a telescope, and the "She is an Astronomer" program, whose goal is to promote interest and opportunities for women and girls in astronomy . The American "node" of the IYA (organized by the American Astronomical Society (AAS)) has designated the following nine interdisciplinary thematic strands for U.S. initiatives for IYA public engagement:

- Low-cost telescope kits and /) optics activities (http://astronomy2009.us/optics
- Storytelling (http://astronomy2009.us/storytelling/) and cultural astronomy
- Astronomy at science centers, observatories, and planetariums (http://astronomy2009.us/epo_centers/)
- Research experiences for everyone (http://astronomy2009.us/citizen_science/)
- Looking through a telescope (http://astronomy2009.us/telescopes/)
- Preserving and appreciating dark skies (http://astronomy2009.us/darkskies/)
- Astronomy in the classroom and for families (http://astronomy2009.us/education/)
- Astronomy in the arts and entertainment (http://astronomy2009.us/a_and_e/)
- Astronomy and the New Media (e.g. Facebook, Podcasts, Second Life) (http://astronomy2009.us/newmedia/)

Community engagement involving a number of these themes has been an essential part of the ongoing mission of CCSU's Copernican Observatory and Planetarium and central to my personal work ethic. An increasingly important part of my teaching has been directly involving our students in these efforts, both in informal outreach and formal service-learning.

A natural way that astronomy students can engage in content-based service-learning is by conducting public observing sessions (or "star parties"). In the words of famed amateur astronomer John Dobson, the "true value of a telescope is how many people can view the heavens through it" (MacFarlane 1990:209). Numerous authors have discussed the importance of bringing astronomy to the public through such opportunities because the general public, like the college astronomy student, wants the opportunity to look through a telescope and experience the universe with "eyeball on glass." Therefore, in opening up opportunities for the public to observe the night sky through telescopes, students can engage in true content-based service-learning, in that the process enhances their skills as well as meeting a need of the community.

The Course

ESCI 278, Observational Astronomy, is a four-credit course offered each Fall semester. Classes meet for two 50-minute daytime periods and two two-hour evening lab periods per week. Topics covered include solar and lunar observing, telescope design and usage, naked eye and binocular observing, and observing of deep-sky objects, planets, comets, meteor showers, and variable stars. The course has a prerequisite of one previous astronomy lab course or permission of instructor, and can be used as part of the astronomy minor, earth science or science education major, or by non-science majors to fulfill the general education lab science requirement. Non-science majors typically make up about a third of the students, and gender parity is nearly achieved. Students' understanding is assessed several times during the semester, through an inspection of their observing logbooks and two in-class exams. Before 2004, student proficiency with a telescope was measured by an individual lws1zz2Xzz2X3EDGT5Yab practicum, in which students were taken into the observatory one at a time and asked to locate an object selected by the instructor.

Beginning in 2004, a capstone service-learning component was integrated into the course in lieu of the practicum, namely a series of public observing sessions planned, advertised, and conducted by the class as a whole. As noted by Kaye (2004), planning service-learning activities allows students to draw upon their individual strengths and interests. This was certainly true in ESCI 278, where science majors and students specializing in the arts and humanities worked seamlessly as a team, each contributing their unique talents to the planning and execution of this curricular engagement project. For example, English majors were quite helpful in the writing of press releases for the events. Each year, the students selected a theme for their series of observing nights, based on the objects visible in the night sky, such as "If the Stars Could Talk…" Stories of the Winter Sky; From Stars to Mars, Make it a Night at CCSU!; and Myths, Mystery, and Magic of the Milky Way. Working in pairs, students claimed responsibility (or as they called it, ownership) for a specific celestial object such as the Moon, Mars, Andromeda Galaxy, or Pleiades as well as an optical instrument which would be used solely for that object. As part of this project, the team of students would become experts on both their object and their instrument.

Perhaps the most practical point of concern from both the students' and my point of view was fair and effective grading of the project. This is normally associated with the final or demonstration stage of service-learning (normally following the preparation, action, and reflection) where the students clearly prove what they learned. Kaye (2004) recommends that this occur through public presentations in which students act as teachers of the material they have mastered. Effective assessment of such performance activities requires a well-defined grading rubric. Such an instrument measures different aspects of a student's mastery, including astronomical knowledge and interactions

with the general public. Using an "excellent, very good, satisfactory, or less than satisfactory" scale, the faculty member can assess various facets of a student's performance, such as enthusiasm and courtesy extended to the public, cooperation with classmates, ability to correctly answer questions about the instrument used and object viewed, and ability to set up and manage the assigned instrument.

The Outcomes

From my point of view, the project has been an unequivocal success, but not without its challenges. One year, the first three of four sessions were cancelled due to inclement weather. Although the students became quite frustrated, it was a valuable learning experience concerning the power of the weather over observational astronomy (and the necessity to schedule multiple dates). The only clear night was Thursday, the unofficial party night on campus, so attendance by students from outside the class was sparse. Another year, the sessions coincided with the first major cold-snap of the season, and students spent three clear albeit frigid nights on the roof. Attendance was steady and the public greatly appreciative, but attendees spent less time actually observing each object than they otherwise might have.

An important part of the service-learning experience is reflection upon the activity. This occurs informally throughout the process, as students discuss amongst themselves and with the faculty member how they see the experience unfolding. A formal reflection was done by students after the observing sessions, and these representative comments echo the success of this program:

• "The people that I invited (teachers from Naylor School in Hartford) loved the experience. They were impressed with the knowledge we displayed and our enthusiasm towards astronomy…. The objectives were met and we had fun too."

• "We not only had to know the material, but we had to make the information appropriate and understandable to the listener. The conversations invariably wandered from our 'assigned' object and telescope, so we had to be facile with a wide and unpredictable amount of the course content. And because the event was so much fun, I found that it actually stimulated learning far more than a test or even a research project."

• "At first I really wasn't thrilled with it. I thought it would be somewhat of a drag. But once we started it I loved it because it was fun telling people about my object, and nice to see how they reacted. I felt like I was helping those people out and overall I felt like we were doing something informative for our society. I loved the group setting and the whole class doing it. We worked great together."

• "Public observing was an awesome experience. It is easy just to memorize facts and constellation charts, but when you have to find and describe the night sky to someone, you not only have to know it, you have to understand it. It is really neat to understand it. It is also really neat to experience the night sky through another's eyes, especially a child's."

• "When we are doing observations as a class, we all know and understand what each other is talking about. When the public was here, it gave us an opportunity to explain what we were doing and showed how much we actually learned this semester."

Since the service-learning component's integration into the course, written reflections by students have unanimously agreed on the success of the activity, both to their learning and personal growth. Curricular engagement was valued by all students served by this course, including pre-service teachers, students interested in careers in public service and communication-based fields (such as Psychology and English), and students interested in furthering their astronomical careers through graduate school and research opportunities. It has been increasingly argued that it is especially important for this final group to engage in community engagement activities, although at many universities no such opportunities are afforded them. For example, the IAU's Washington Charter for Communicating Astronomy with the Public (2004) specifically recommends that universities "develop appropriate formal public outreach and communication training for all researchers and [integrate them] into the academic courses of study for the next generation of researchers." Each year, the members of the general public who attended were impressed and voiced positive comments about the students' professionalism, knowledge, and enthusiasm. The gender equity achieved in this project, not only in the number of students participating (on average) but also in the distribution of responsibility/authority, provided positive role-models to the young women who attended the public sessions, something which did not go unnoticed by the public, and demonstrated that a woman's place is in the (observatory) dome.

The Future

Personal observations, student comments and public satisfaction have demonstrated the success of the student-run public observing sessions capstone project for ESCI 278. This project allows students to

• Engage in collaborative, content-based service -learning
• Demonstrate their acquired skills and knowledge
• Involve their friends, families, and the public in their learning experience
• Gain real-world experience in dealing with the general public and teaching astronomy

I have certainly benefited as well, by gaining experience in new teaching methods, assessing students in an active way, and demonstrating to the university community the educational value of the astronomy facilities. The general public has also greatly benefited from this project.

In preparation for the IYA, a major revision is being planned for ESCI 278 for this Fall in order to integrate more service-learning projects into the course, including a mid-term (October) curricular engagement activity to celebrate the 400th anniversary of Hans Lipperhey's invention. A second curriculum development phase centers around satisfying the students' perennial request for further opportunities for curricular engagement, namely a Spring 2009 section of ESCI 490 Topics in Astronomy focusing on community engagement and the IYA. In this course students will develop new educational materials for use by such community partners as local schools, libraries, and home schooling groups and conduct workshops using these materials. All developed materials will be housed on a student-developed website for free download by groups and families around the world. In this way, the students will engage far more people than those directly served in the workshops and activities they themselves conduct in person. As a capstone project, the students will plan, publicize, and conduct a day-long set of activities (including speakers, planetarium shows, and hands-on activities) for national Astronomy Day (May 2, 2009).

Take another look at the thematic strands listed for the International Year of Astronomy, and you will see that this historic event provides astronomy educators with a once-in-a-lifetime opportunity to work with colleagues from the arts, humanities, and other fields to involve students in curricular engagement. Even if your university does not own a telescope, myriad opportunities exist for students to work with the local art museum, planetarium, science center, library or school district to create educational tools and to share these tools with the public. Just mention the possibility of creating a Podcast, YouTube video, or website and see your students' eyes light right up. These projects will not only further their own appreciation and knowledge of their discipline, but focus their attention on their place in the local community and their responsibility to it. For just as Galileo demonstrated that the earth is not the center of the solar system, our students should be shaken from the misconception that their chosen major is the center of the academic universe, and that its history and future are somehow divorced from all other aspects of human endeavor. Ten million new telescopic observers may seem like a daunting task, but with the able and vastly underutilized assistance of our students, we should not only shoot for the moon, but far beyond.

References

Kaye, C.B. 2004, The Complete Guide to Service Learning, Minneapolis: Freespirit Publishing.

NEFDC EXCHANGE
Tom Thibodeau, Assistant Provost
New England Institute of Technology
2500 Post Road
Warwick, RI 02886