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## Teaching and Technology: The (New) Philosophical Implications

Dr. Sabatino DiBernardo & Dr. Michael Newlin



Dr. Sabatino DiBernardo (Pictured): Dr. DiBernardo is a Visiting Assistant Professor of Religious Studies and Humanities with the Department of Philosophy. He is currently teaching a fully on-line course entitled "Religious Quest and Human Dilemma."

Dr. Michael Newlin:

Dr. Newlin is an Assistant Professor with the Department of Psychology. He is currently the Coordinator of the Psychology program at the UCF-Brevard Cocoa campus. He and his wife, Teresa, reside happily in Cape Canaveral.

Over the last ten to fifteen years, colleges and universities have greatly expanded the use of web-based technologies in the area of instruction. A wide variety of courses and some degree programs are now taught entirely on the World-Wide-Web, while other courses are taught using a combination of traditional lectures and web-based course components. Although some may consider this to be a pedagogical paradigm shift, it may be viewed more accurately as a technological paradigm shift with philosophical and pedagogical implications. While the development of this new teaching paradigm has produced a number of effects, the most important, perhaps, is the inherent need to explicitly consider one's teaching philosophy.

The new technologies now allow for communication that is time and place independent (asynchronous communication) in the form of e-mails, bulletin board postings, and fora. This type of communication allows for instructor-student and student-student interactions. We also have the ability to communicate in a manner that is place independent (synchronous communication) in the

form of chatrooms and instant messaging. This allows the instructor to lecture to an entire class and/or to have private conversations with an individual or groups of students during the lecture. Furthermore, the course management software for distance education courses provides instructors with the ability to track the activity and performance of students. For instance, it is now possible to track the number of times students access the course, the number of times they visit each page of course material (and the duration of each visit),

and the number of forum postings read and written.

Although these new technologies can be useful, they should be viewed as additional tools at the disposal of an instructor in the design of a course. The primary driving force behind course design must remain the teaching philosophy of the instructor. Specific tools should be incorporated into the course based on an instructor's teaching philosophy. In other words, course design must be pedagogically not technologically driven. To this end we suggest four technologically-based issues that should be considered as part of a coherent, critical, and current teaching philosophy.

First, we suggest that interactivity in the classroom is key, irrespective of whether the

course format uses traditional or web design. Efforts should be made to create interactivity between instructors and

students. Furthermore, the development of student-to-student interactions should be sup-

***"The primary driving force behind course design must remain the teaching philosophy of the instructor."***

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ported. With respect to course designs that use the web, the immediacy of synchronous computer-mediated communication should be recognized and included as a routine component. Asynchronous computer-mediated communication should be used to address issues where the need for immediacy is not present. With the advent of new technologies, instructors must fully consider the importance of interactivity and work to utilize any tools that can serve to increase the level of interactivity in a course.

Second, irrespective of the technology incorporated into a course, learning outcomes are the true standard by which course success should be measured. In this new technological era, course components should be selected that are directly related to student learning. Instructors should avoid being seduced by leading-edge technologies that could result in decreased student learning. If, for example, students have difficulties accessing and/or utilizing a new technological tool, it will draw time and attention away from the learning process. We suggest that instructors concentrate on proven, robust and reliable (trailing-edge) technologies that will work effectively for all students.

Third, instructors must build mechanisms into their courses that allow each course participant to feel engaged in the social context of the course (i.e., that they have a social presence in the course). The use of student and instructor names in synchronous and asynchronous communication, individualized performance feedback, and the use of appropriate personal pronouns during interactions represent methods that can help to build social presence for each student. Social presence is not only an issue for web-based course designs, however. We should be equally concerned about creating social presence for a distance-learning student and the anonymous student nodding off in the back of a 500-seat lecture hall. Overall, it is our belief that all instructors need to consider the type and level of social presence their courses afford each student.

Fourth, new technology has also influenced students' expectations regarding the instructor, the course and educational institutions. Expectations regarding convenience, accessibility of instructors, timeliness of responses and feedback need to be considered. In most cases, it is necessary to address these issues in course syllabi and directly discuss them during the first weeks of a course.

In conclusion, we strongly believe that recent technological advances have direct implications for an instructor's teaching philosophy. Now, more than ever, educators need to consider the roles of interactivity, learning outcomes, social presence and student expectations in designing and teaching courses. Furthermore, as technological tools continue to change and develop, instructors must continue to re-evaluate and update their individual teaching philosophy. In the end, pedagogy, not technology, must remain the primary focus of the teaching craft.

## **Teaching First Year Students: Expanding World-View**

**Terry Thaxton**



Terry Thaxton is an Instructor / Lecturer in the Department of English. In addition to teaching freshmen composition, she also teaches courses in Poetry, Fiction, Nonfiction, Expository Writing, and Magazine Writing, and this semester she's teaching in Women's Studies: "Women and Community Activism."

Also this spring she's conducting a creative writing workshop at PACE Center for Girls in Orlando.

Students often come to GEP classes not knowing how to express their world views, and many of them don't know what their own world view is. Last semester, in ENC 1102 (Composition II), I wanted to teach students not only how to write better, expressing their opinions and thoughts more articulately, I wanted them to design and synthesize their own world view. I didn't want them to simply regurgitate information they'd gotten off TV and the Internet, nor did I want to hear their parents' opinions or the opinions of their friends. And since terrorism and war had become a theme in our daily lives, I wanted them to learn what they thought about war and terrorism. Composition II is a course that focuses on argument. According to the guidelines of the English Composition Program, students must be able to "read and analyze a text, understanding the implicit and explicit arguments, the intended audience, and the assumption/implications of the argument." They must also "investigate a problem or issue, conduct primary research, and write a proposal justifying further investigation." They must "listen to and acknowledge other view points and experiences that surround the topic, articulate others' position(ing)s by analyzing the arguments." Finally, they must "synthesize and integrate the results of primary and secondary research, apply documentation skills (MLA, APA, CBE), and eliminate non-workable arguments and focus on viable solutions."

When students are required to use primary research, they are better equipped to think for themselves and to articulate an opinion that is grounded in experience and fact rather than second-hand opinion. As the basis for our research, I used war and its impact on human expression, since the course I taught was a LINC course with Humanities. For the first half of the semester, we looked closely at five major conflicts in which the U.S. has been involved: WWI, WWII, Vietnam, Korean War, and the ongoing Yugoslavian conflicts. At the end of the semester, we looked closely at the current U.S. conflicts. Throughout the entire semester, we looked at the creation of music, dance, painting, drawing, literature, architecture, and film as a result of or in spite of war. The course focuses on researching, composing, thinking, and discussing.

Additionally, I place great value on group work, especially in first year classes. I required that students conduct extensive field work with other class members. Each team watched a film based on the events of one of the five conflicts (I determined the films). Then each team presented an oral analysis of the central argument made in the film. For example, the team examining World War II watched *Sophie's Choice* and chose one scene that clearly showed the film's central argument: that war has lasting negative effects on all people. Each week students located and responded to a scholarly article that related to war or to humanities as a result of war. Next, each team located and interviewed at least two veterans of the war their team was exploring. Each team also located products, artifacts, or expressions that resulted or were a part of the war. One of the WWII veterans showed the team members old newspapers, magazines filled with pin-up girls, and a Nazi patch he had taken off a corpse. He let them hold these items and gave them the opportunity to ask him questions.

After the interview, they were highly motivated to focus on one or two aspects of war. That's when I turned them loose on locating articles about the impact of war on the humanities. We discussed the changes that occur because of war, how art, music, literature, government is impacted by war, and how individuals deal with the tragedies of war. This research helped lead each student toward an understanding of problems and issues that arise with war other than the ones that are typically reported in the media. Throughout their investigations, students were reading two novels which we discussed in class: *Slaughterhouse Five* by Kurt Vonnegut and *The Things They Carried* by Tim O'Brien. We discussed the problems and issues that are common to war and identified problems that are specific to each war. Now students were able to discuss the current world conflicts and were prepared to construct an essay that argued for workable solutions.

The next project required that in teams, with a partner, or individually, students create a visual argument that portrayed their understanding of the current conflict between the U.S. and "terrorism." Finally, students brought their visual argument to our final exam period, and I assigned someone else's visual argument to each student, who then wrote an analysis of the explicit and implicit arguments.

The novels aided students in personalizing the issues; the articles helped them understand the various opinions on the issues; the writing helped them articulate their own opinions and proposals; but it was the interviews that affected the students the most—here they saw up-close how war impacted individual lives. Sure, they moaned about having to set up

appointments for interviews; they complained about not having a good time when all team members could go to the interview; they whined about having to drive to an interview. But after the interviews, I had a classroom full of students who knew at least one person who had been deeply affected by war—a room full of adults, each with his/her own opinion, listening to opposing viewpoints, interested in not only the impact of war on the U.S. but the affect of war on our lives.

**"When students are required to use primary research, they are better equipped to think for themselves and to articulate an opinion that is grounded in experience and fact rather than second-hand opinion."**

## **Reflective Writing as a Tool For Perspective Transformation in Adult Students**

**Judy Ruland**



Dr. Judy Ruland is a Visiting Associate Professor in the School of Nursing since August of 2002. Her research interests include educational program evaluation, learning outcome assessment, the effect of classroom environment on personal engagement and critical thinking, effectiveness of active learning strategies, and writing as a tool for fostering critical thinking. She teaches courses in the RN-BSN track and in the Education Certificate Program.

### *Introduction*

Adult learners frequently experience a certain degree of role strain and role conflict as they return to school because they may not see the relevance of the course content to their current practice, or may perceive the content to be in conflict with what they have learned in previous educational programs. This is especially true when adult learners are asked to think in divergent manners that may conflict with their previously established frames of reference.

Mezirow's (1997) adult learning theory is centered on the processes by which an individual's meaning perspective (or frame of reference) is changed or transformed. Mezirow suggests "...adult development is not a succession of age-related steps and stages, but instead results from transformations of perspective in response to unexpected events or disorienting dilemmas" (1997, p. 7). Transformative learning theory suggests that there will be numerous times in an adult's life when disorienting dilemmas occur. These events are defined as unexpected events that cannot be understood and resolved using the individual's prevailing meaning perspective, or in other words when cognitive dissonance occurs. This dissonance may be reduced through a critical reflection process.

Reflection on and critiquing of existing assumptions and meaning schemes in relation to new information becomes transformative learning when it leads to a significant restructuring of an individual's meaning perspective. Such reflection creates an atmosphere of active student engagement that is the essence of metacognitive activity. Metacognition is the self-communication about task demands and cognitive strategies a person engages in before, during and after performing a task (Brookfield, 1999), or in other words "thinking about one's thinking while thinking" (Paul, 2001, p.15). Learning activities that offer multiple and regular opportunities for self-reflection and self-examination of an individual's assumptions prior to participation in a student-centered class discussion have been shown to best foster active engagement in the learning process and the metacognitive growth that is exemplified in transformative learning (Barell, 1995, Mezirow, 1998).

***"Such reflection creates an atmosphere of active student engagement that is the essence of metacognitive activity."***

Returning to school can be a disorienting dilemma for registered nurse students with previously earned associate degrees in nursing and who may have been practicing for many years. Significant cognitive dissonance occurs as students find themselves questioning their professional beliefs, assumptions, and values that have formerly been the primary determinants of their meaning perspectives. In addition to such meaning perspective strain, adult learners experience significant life role strain as they attempt to juggle their busy family lives and hectic work schedules with the new demands created by the courses in which they have enrolled. Such life situations may lead the busy adult student to not read before class or to only give the reading assignment a "once-over lightly" type approach rather than critically reading the chapters assigned and thinking about how the material presented compares to the work situation in which they find themselves and to previously learned material. This phenomenon is somewhat exaggerated in nursing education by the fact the RN-BSN courses are purposefully structured to meet on a once-per-week basis in a three-hour time slot. This is done to accommodate the RN-BSN students work schedule. These students typically take two three-hour classes one day per week. This scheduling pattern then adds the further constraint of long reading assignments due in two courses on the same day. These constraints challenge faculty to maximize opportunities for meaningful student engagement through well-designed classroom environments and assignments that require a student to engage in self-reflection. The challenges that RN-BSN students experience and this pattern of class scheduling are not unique to nursing education. Similar situations occur across every college at the university that offers undergraduate or graduate courses in a fashion that best accommodates the life needs of adult learners who are working and juggling busy lives with their return to school.

### *Innovation*

I have found that the use of several short reflective writing assignments on a weekly basis coupled with a student centered discussion/active learning classroom environment allows adult learners to restructure meaning perspectives in a transformative manner. The writing assignments include (1) a one-page analysis/reaction to assigned readings to be completed and e-mailed to the faculty member the evening before class, (2) in-class short reflective "free writing" exercises in response to "dissonance creating" questions asked by the faculty member, (3) a short informal minute sheet completed at the end of class asking students to describe what was most important in the class that day and what questions still remain as the class is concluded; and (4) a weekly electronic reflective journal which asks the students to respond to two practice related questions and one educational process related questions.

This "package" of writing assignments does two important things: it ensures that the adult learner critically reads the assignment before coming to class and it creates a climate for learning in which the adult learner is expected to and feels safe to explore and evaluate meaning perspective in terms of assumptions, beliefs, attitudes and actions. Students personally engage with the new material they are reading, gain confidence in their own abilities, and feel supported as experienced professionals who are engaging in a new learning activity.

### *Implementation*

The one-pager analysis of the reading helps to create a classroom environment that becomes an opportunity for well-prepared students to share social control with the faculty facilitator while engaging in a process of joint inquiry. The analysis is based on questions provided in the syllabus that push adult learners to look at the reading from their practice perspective. The directions for the exercise clearly instruct the student to NOT write a summary of what they have read. Instead, students are told to write a one page single spaced paper that demonstrates thinking. The students are directed to analyze the reading and pose questions about its meaning, applicability, value and/or utility for their practice. After reading the one-pagers, the faculty member becomes a better discussion facilitator who is better able to draw out meaningful comments from students who might otherwise not feel comfortable sharing their meaning perspective with their colleagues. It also allows the faculty member to immediately begin class with the areas of the reading that presented the most confusion, misconception, or interest on the part of the adult learners. I have literally restructured what I had planned for class based on my reading of the students' one pagers the night before class. In larger classes, where the faculty member may not have the time to read all the one-pagers before class, a random sampling of the one pagers is just as helpful a tool. The most important part of this exercise is the student

reflection, not the faculty grading of the one-pager.

The short "free write" exercises in response to a "dissonance creating question" is a magic tool to re-engage a group of students when a discussion has become less than productive or when the presentation of material has been too instructor centered. I most often couple this with a "share-pair" type exercise having the student share with their immediate neighbor what they have written. By having the students first write their own response to the question and then share with a colleague, the students must stipulate their own position on the issue before being potentially dominated by a more articulate classmate. As I prepare for class by reading the material, I write such questions related to many different aspects of the chapter, never knowing at what point in the discussion I may need a re-engagement tool. This exercise immediately transforms the classroom into very noisy, active and focused discussions between colleagues in the room. Students feel that their perspective matters and they feel comfortable sharing their frame of reference in a smaller, safer context. I may or may not then have the dyads report back to the group the substance of their discussion. The more controversial the question, the better the discussion becomes.

The short "one-minute sheet" is the last in-class reflection that occurs and it happens right at the end of the class. During the last few minutes of each class, students are asked to reflect on what were the most important things learned during the three hour class, and what questions still remain as we conclude the session. This technique asks the students to reflectively think about their own thinking. It forces them to review what was discussed and to determine gaps in their understanding. I find that it is very helpful to me in my self-evaluation of the effectiveness of both my teaching and of the class discussion. I am frequently surprised when some students select certain areas they consider to have been most important during the discussion that I never would have considered. It allows me the opportunity to then, after class, clear up misconceptions by sending handouts or clarifications to the class via e-mail on the class list-serve. Often what is confusing to one student is probably also confusing to many others in the group.

The weekly e-journal further allows the student the opportunity to critique their practice in terms of newly transformed meaning perspectives and to consciously reflect on their thinking processes rather than just recount activities. This exercise is carefully explained in the course syllabus that lists 30 questions to be addressed over the course of the semester. Students are instructed to write more about their thinking and their feelings than to provide deep detail of the activity about which they are writing. In the beginning journals, students almost always err on the side of activity detail rather than their response to that situation. After the first several weeks, with guidance they become more reflective. Because the student is writing about what is

very familiar to them, the journal provides a comfortable environment in which to think about familiar things in new ways-or in other words it structures meaning perspective transformation. The e-journal also provides a forum for the students to share any issues that may be developing in their newly begun educational process with the faculty member who is then able to intervene more quickly to offer assistance in the learning process.

#### *Assessment*

How well did this work? In the beginning of the semester, I found that students wanted to summarize the reading rather than analyze the reading from their alternate perspectives. My comments on both their one-pagers and on their weekly e-journals focused on challenging their assumptions, encouraging deeper reflection and offering examples of what I meant by that term, proffering support for the issues they shared and suggesting alternative solutions if appropriate. I was careful to make my reading assignments of reasonable length, because I wanted the students to read each chapter twice, and then to write their reflection about what they had read. All of that takes time, and these are busy adult learners. I wanted the reflection done well, so I compromised in the length of the assignments I made. I also gave very explicit directions both in the syllabus and verbally the first day of class so that students were clear about my expectations. I brought examples of one pagers to class and showed them what I considered to be correct and also showed them one-pagers that were very detailed but not reflective in nature and therefore not acceptable.

The registered nurse students were well equipped to write rich descriptive detail about the activities that happened or the aspect of the book they were analyzing but ill equipped to reflect on what they thought, felt or previously knew about the topic at hand. It took most of the students about four or five weeks to really begin to be reflective about their own experiences. By the end of the semester, they were asking significantly better questions in class and in their writing, and were much more confident and willing to demonstrate how the theory discussed in class was relevant for their practice.

***"By the end of the semester, they were asking significantly better questions in class and in their writing"***

The e-journals were a powerful tool in easing the RN-BSN students into the transition of both reflecting and writing about something they know very well (their own practice situation) to reflecting and writing about something they may have known very little about (their formal research paper required at the end of the term.) It really helped to "stretch" them gently to become more comfortable with public discourse. It was the e-journals that taught them how to be reflective, and then they used those techniques in their one-pagers. Without the e-journals, I don't think they would ever have attained the level of reflection that they accomplished in terms of their reading assignments.

This experience was equally as transforming for me as a teacher. The journals and the one-pagers, and resultant class discussion jarred me out of the little grooves of knowledge that I have worn for myself after 25 years of teaching. It brought me back to exactly what is relevant in today's nursing practice and what difficult situations the registered nurse student is experiencing on a daily basis in practice. It dramatically reminded me of the role strain and struggle that an adult who has been out of school for some time, and who may be in a leadership position at work, may experience as he/she returns to the supposed dependent position of learner. Obviously, all of this writing leads to a lot of reading on the part of the faculty member. It is fascinating reading, however, and as previously mentioned still effective in large classes.

In the literature, controversy exists related to both the appropriateness of grading journals and the methods to be used (Jarvis, 2001, Kennison, & Misselwitz, 2002). There are proponents of not grading for grammar or sentence structure and focusing more on the level of reflection. Students are conditioned to regard faculty feedback as the most important aspect of any writing assignment. I had to work to help the students see that it was the reflection and the writing they were doing that was much more important than what I thought about what they had written. Although, in some cases I was never able to achieve that goal. I used a holistic model of grading focusing primarily on the depth of reflection and less on grammar and mechanics. I did however correct mechanics as needed. The free writes were never collected and read by me; instead they were only used in the context of enriching class discussion and peer interaction. The minute papers, done at the end of the class, were not returned to students; instead they were simply read by me and reported on if necessary in future e-mailed announcements to students or in the following class session.

I have had mixed reviews from the students. Their course evaluations indicated that on the one hand they gained an enormous amount from the process especially in terms of their own self-awareness, and they felt they had learned a great deal. Several students commented that they felt very well prepared to continue in the remaining courses and to begin graduate study. The course evaluations indicated that the class discussion was excellent and that they felt very engaged in the learning process. Several commented that it took some adjustment to become comfortable with no lecturing in class, but ultimately they liked the process. At the same time, many students indicated that they felt they were being asked to do more writing than was possible within the framework of their busy lives. The scores for teacher effectiveness were not of the level I am used to in my years of teaching. They wanted less writing and more feedback from me about what they had written. Research shows that stu-

dents find activities that force them to reflect on their meaning perspectives to be uncomfortable, and difficult (Peterson & Jones, 2001). If students' past learning experiences or if their current learning experiences in other courses do not expect such depth of analysis before attending class, they will not be happy when required to participate in this level of writing (Jarvis, 2001).

In addition to the reflective writing that I have described, this course has several written assignment requirements. These include a formal APA research paper, a written philosophy of nursing, and a professional portfolio. Based on student feedback, in the future I would probably limit the weekly e-journal to be an every other week journal and would not require it after mid-semester when they are beginning the work on their formal research paper. I would not eliminate the one-pagers, the free writes or the minute papers at any point in the course.

***"Research shows that students find activities that force them to reflect on their meaning perspectives to be uncomfortable, and difficult."***

#### *Conclusion*

Reflection is a complex process and one that is best learned through structured and monitored practice. This package of fairly simple writing exercises proved to be a powerful tool in the transformation of the students involved. It offered these adult learners the opportunity to shed their anxiety and to grow professionally and personally. It de-sensitized them to the process of writing, and helped them learn the value of self-reflection. It offered me the opportunity to be a much better classroom teacher and professional colleague/mentor to these adult learners.

References and guidelines used by Dr. Ruland for the one-pagers, and the e-journals are available at <[www.fctl.ucf.edu/focus](http://www.fctl.ucf.edu/focus)>.

*"Yet only through communication can human life hold meaning. The teacher's thinking is authenticated only by the authenticity of the student's thinking. The teacher cannot think for her students, nor can she impose her thought on them. Authentic thinking, thinking that is concerned about reality, does not take place in ivory tower isolation, but only in communication. If it is true that thought has meaning only when generated by action upon the world, the subordination of students to teachers becomes impossible."*

Paulo Freire  
*"The 'Banking' Concept of Education"*

## **Increasing Interactive Learning in the MSE Curriculum**

**Yongho Sohn**



Yongho Sohn (Ph.D., 98, Purdue University) is an Assistant Professor of Advanced Materials Processing and Analysis Center (AMPAC) and Mechanical, Materials and Aerospace Engineering (MMAE). His research and education activities on high temperature materials and coatings are funded by NSF (CAREER Award), USDOE University Turbine Systems

Research (UTSR) and several industrial companies including Siemens-Westinghouse Power Corporation, General Electric Company, Pratt & Whitney and Solar Turbines Incorporated. He teaches introductory materials science, an engineering course entitled Structures and Properties of Materials, and a graduate course entitled Diffusion in Solids. His teaching style emphasizes in-class interaction with students, assignments that require critical thinking, hands-on experience, and encouraging students to pursue an advanced degree in materials science and engineering.

While students learn "more" by interaction with faculty and "hands-on" experience, implementation of such a curriculum is difficult for an introductory course in a large classroom. This is a problem I faced teaching EGN 3365, entitled "Structures and Properties of Materials." In this course, students from various engineering and science disciplines are introduced, for the first time, to the definition of Materials Science and Engineering (MSE) and related fundamental concepts. In general, new concepts in this course are presented with a large number of visual aids including schematics, graphs and photographs. Then they are related, preferably quantitatively, to fundamental concepts of basic science such as mathematics, physics, chemistry, thermodynamics and kinetics. The visual aids in general consist of computer generated overhead projection, most of which are static and sometimes sequential "pictures."

Considering how interactive computers can be (e.g., think of the latest computer games or my kids' "Blue's Clues" computer program for that matter), there is a definite need for "exciting and fun" educational modules for our students. MSE, with its complex calculations for thermodynamic phase equilibrium, multicomponent diffusion, and reciprocal lattice, can be "exciting and fun" once students understand the overall concepts and applications.

A comprehensive survey was carried out to identify such educational modules for MSE. Most of the "free" and "commercial" packages were disregarded for their "non-interactive-ness," since they merely contained series of animations, schematics, graphs and photographs: a sit-and-watch

approach. Are these taking a full advantage of what computers can do? These programs did not offer any user-input where a student can learn new concepts by formulating questions or answers and learning from mistakes.

Two specific programs "qualified" as "interactive" learning modules, though the level of their maturity, sophistication and presentation is quite below that of my kids' "Blue's Clues" computer program. I have begun to selectively use them in-class during lecture this semester (Spring 2003). Student reaction and comments are carefully examined as an assessment, which will be relayed to the software manufacturers.

Alternatively, effort to produce MSE education modules that truly offer interactive learning and virtual experience can be sought after with external funding. This is a promising idea since most of the federal funding agencies look for university proposals that effectively integrate education and research through multidisciplinary effort.

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## **The Digital Divide**

**Bob Heterick and Carol Twigg**

Several weeks ago I spent a couple of hours with a reporter for one of our prestigious national magazines who was doing a story on the "Digital Divide"-a very catchy title. "What," she asked, "is your view of the digital divide?" I'm sure my response was far from what she expected. I asked her to explain the digital divide to me and she replied something like, "you know-the haves and have nots."

Now this is not an unimportant question for those who are contemplating moving some forms of instruction from the physical classroom to the ether of distance learning. If students don't have the technology to take advantage of technology mediated learning environments, we won't have any students. If some do and some don't, we are immediately limited in those we can reach. So what about this digital divide?

Certainly slaves in Egypt in 1000 BC had little expectation that they, their children, or their children's children would be anything but slaves. Similarly, a serf in 13th century France had no expectation that he would ever be a landowner, much less lord of the manor. A social divide pertained in each instance that was essentially impregnable. The "cost" to go from slave or serf to land owner was simply beyond reach.

The College Board recently published some statistics that might give us pause. Three quarters of households with incomes greater than \$75,000 have computers. One third of households with incomes between \$25,000 and \$35,000 have computers. Only one sixth of households with incomes less than \$15,000 have computers. Interestingly enough, (admitting that I don't have the exact figures), better than 95 percent of those households with incomes less than \$15,000 have television sets.

The "cost" to go from a television "have not" to a television "have" is in the range of \$200 to \$500. The cost to go from a computer "have not" to a computer "have" is about \$600. To be sure, Internet connectivity can raise that price somewhat-but not appreciably if we are willing to settle for 56 kps dial-up. It is also the case that over 95 percent of the households in the United States have a telephone. Unlike the cases of the Egyptian slave or the French serf, there is a very real prospect that one can go from a computer "have not" to a computer "have." In fact, if consumers valued computers as much as televisions, we wouldn't have a digital divide to talk about.

***"In fact, if consumers valued computers as much as televisions, we wouldn't have a digital divide to talk about."***

So how should the "digital divide" figure in our planning as we think about moving from the marketplace to the market-space? Probably not at all. The \$600 cost to become a "have" is about what one might expect to save in first semester tuition costs—not to mention room and board. We might better be talking about the "Digital Dividend."

The digital divide we should be worrying about is the unhappily slow roll-out and high cost of high speed digital connectivity. To produce really compelling learning applications on line, we will most often require megabit access. At the current roll-out rate of our phone companies' digital subscriber line technology and the cable companies' symmetrical broadband services, we will be severely limited in what we can design in the way of new learning environments for

quite some time to come. Maybe we should get to work on this digital divide.

--RCH

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Written by Carol Twigg and Bob Heterick, The Learning MarketSpace is a monthly electronic newsletter that provides leading-edge assessment of and future-oriented thinking about issues and developments concerning the nexus of higher education and information technology.

<http://www.center.rpi.edu/LForum/LdFLM.html>

### ***Faculty Center Funding Opportunities***

#### **Summer Faculty Development Conference: April 28 - May 1**

The Faculty Center for Teaching and Learning will provide 120 \$800/person grants for faculty members who are transforming courses by emphasizing service learning, interdisciplinarity, instructional technology, etc. Faculty members from all colleges are invited to apply (team submissions will be given preference). The RFP is due on February 21st.

[http://www.fctl.ucf.edu/events/summer\\_conf/index.htm](http://www.fctl.ucf.edu/events/summer_conf/index.htm)

#### **Collaborative Learning and Studio Classroom Project:**

The Faculty Center for Teaching and Learning is calling for submission of proposals by any UCF faculty who has an interest in incorporating or improving collaborative learning. The spring semester dates are 2/7, 2/21, 3/7, and 4/4. The RFP is due January 31st.

This series is held during the fall and spring semesters. If you have a desire to teach in the studio environment or to transform your teaching environment to facilitate student-centered activities, it is recommended that you plan a few semesters in advance by consulting with your chair and the Faculty Center.

[http://www.fctl.ucf.edu/events/collab\\_clsrooms/index.htm](http://www.fctl.ucf.edu/events/collab_clsrooms/index.htm)

### ***A Note From The Director***

The winter conference at the end of the fall semester was a great indicator of the energy that faculty have, even after a long semester. Forty eight faculty and staff, working in teams of 3 - 6, brought energy and collaboration to a high level as they developed their projects to enhance and develop new initiatives in teaching and learning. The main topics for the conference were service learning, interdisciplinarity within a course, or interdisciplinarity across courses, but one or two teams worked on other aspects of curricular development. The faculty and staff of the Faculty Center, OIR, CD&WS, and the Library, provided morning sessions and hands-on experiences designed to help explore teaching techniques and student participation activities that have proven effective in teaching these topics with multimedia or web supports, as well as in large or small class settings. The teams then worked in their groups each afternoon from 12:15 - 3:30 p.m. when we had a lively report out session. It was at this session that a lot of cross collaboration occurred as faculty learned from each other and shared ideas. The conference was a great success and we look forward to a summer conference, which will have a similar format. The RFPs are out for the summer conference and can be found at the bottom of the Faculty Center website at <<http://www.fctl.ucf.edu>>.



## February Faculty Center Workshops

**Best Teaching Practices:** In this 2 hour workshop participants will discuss the book "10 Best Teaching Practices" by Donna Walker Tileston, based on how brain research, learning styles and standards define teaching competencies. The participants will discuss these practices and develop teaching strategies for their own discipline and student body. The main topics include using a variety of teaching strategies that address different learning styles, teaching for long-term memory, integrating higher level thinking skills, and bridging the gap between all learners. (February 3)

**Collaborative Learning and Studio Classroom Project:** The Faculty Center for Teaching and Learning hosts a twelve hour course transformation series for any UCF faculty with an interest in incorporating collaborative learning into the curriculum or teaching in a studio classroom environment. For information about future series, see [www.fctl.ucf.edu/events/collab\\_clsrooms](http://www.fctl.ucf.edu/events/collab_clsrooms) (Feb. 7, 21)

**Communication in the Classroom:** (February 21)

**Critical Thinking: What do we really mean?** This workshop will explore the assumptions that underpin the concept of critical thinking. Participants will compare their own conceptions of this often used term with definitions from experts in the literature. Emphasis will be on adapting a definition of critical thinking that is specific to individual participants' disciplines. (February 10, 17)

**Developing a Faculty Portfolio:** One of the hardest things to do is to document teaching proficiency. This two-hour portfolio workshop will help faculty develop an outline for their portfolio and define the content and layout. (Feb. 6)

**How to Assess Performance:** (February 11, 25)

**How we Learn:** While highly effective teachers employ a variety of teaching strategies, students tend to employ only a few learning strategies. This workshop will explore a variety of paths to learning, how we can respond to student's strengths, and how we can encourage students to discover new pathways to learning. (February 4, 14)

**Increase Student Engagement through Discussion:** We will examine the various purposes and management techniques of class discussions with emphasis on effective questioning to increase student commitment. (February 28)

**Interactive Teaching:** Participants will experience interactive classroom techniques that may be used in any size class. By being actively involved, faculty will be able to determine the value of the methods from the student and faculty perspective. (February 20) UCF Daytona Beach

**Scholarship of Teaching:** The criteria set out in "Scholarship Assessed" by Glassick, Huber and Maeroff, will help faculty determine the criteria for the scholarship of

teaching. Use this workshop as a brainstorming session for your ideas and for making contacts across campus. (February 12)

**Student Perceptions of Excellent and Poor College Teaching:** We will explore relationships among items of a student rating instrument that measured teaching effectiveness at a large metropolitan university. Using the overall rating of the instructor and course level, college, year, and other items as predictors, we produced six if-then decision rules that were effective for predicting "Excellent" and "Poor" overall student ratings of instructors. Come to this session to learn more about student ratings. (February 26)

**Syllabus Design:** There are small but important things you can do to help your class run more smoothly and to reduce student anxiety. You will be provided with suggestions and hints about how to provide important information to your students about what you want them to do, your expectations about their performance, and how they can succeed. Bring your best examples, anecdotes, and questions to share with other faculty. (February 17, 18)

**Teaching Circles:** An opportunity to come together to brainstorm teaching ideas and mentor each other as we implement the ideas in our classrooms. Teaching Circles will meet from 3:30 – 5:00 every Wednesday in the Faculty Center. (February 5, 12, 19, 26)

**Test Scoring - Continue to use Social Security Numbers:** Come and learn how electronic grading can save you valuable time! A free service to all faculty and GTA's who need to have NCS Scantron sheets processed. Also, Test Scoring can help you with survey processing for your classes. (February 13, 19)

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**Check out our calendar at  
[www.fctl.ucf.edu](http://www.fctl.ucf.edu)  
for more information.**

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### **Wondering about Words**

Picture the "circus maximus" of ancient Rome. Think of Charlton Heston in *Ben Hur*. Remember the chariot race? Well, the Romans called the race chariot a "curricle." Can you guess where this is going? A "curriculum," etymologically speaking, is the "course" for a race chariot, making, metaphorically, a circus maximus of the school year, a team of raging horses of your students (don't you wish), and a horse driver (à la Heston) of, well, you. So, if you ever feel like you are just racing around and around from semester to semester in a classic spectacle of heroic circularity, consider finding another metaphor.

## Faculty Center Initiatives

### Interdisciplinarity

One of the Faculty Center's pedagogical initiatives centers on the theme of interdisciplinarity. We recognize that the kinds of problems upon which higher education focuses its discipline-specific and collective efforts arise from complex, dynamic, and interdependent relationships between peoples and between people and their environments. And we recognize that learners, as problem solvers, need deep and broad understandings of interdependent systems and the ways humans influence and negotiate complex systems. We therefore propose coordinated efforts among faculty and among programs of study to effectively address these problems and to effectively teach future problem solvers. The Faculty Center will present many perspectives on this theme in future publications, workshops, and course transformation opportunities. Working with other support units and university administration, the Faculty Center will help facilitate the interdisciplinarity initiative as well as the preparation, organization, and registration for linking courses, formerly the LINC program. Your suggestions and participation are needed. Please contact us if you are interested.

### UCF Service Learning

**We need to hear from you.** Please notify the Faculty Center if you are currently (or have recently) incorporated a service learning component in your course. For this request, you may interpret the idea of service learning liberally. The information will be directed to the Campus Compact Grant Committee (UCF's Service Learning initiative).

### Classroom Observations

The Center is offering faculty an opportunity to have their teaching peer-observed. Simply contact the Center and let us know when you would like someone to come to your class. This is not an evaluation but rather an informal way to have an external review of your teaching. We also offer videotaping of the class if you wish.

### UCF-Fit

The Faculty Center, the Wellness Center, and the Recreation and Wellness Center invite you to join us for 6-weeks of fun and informative workshops and opportunities to get fit! The UCF-FIT Program will offer free nutrition, wellness, and exercise seminars. The purpose of the program is to get you motivated to workout and devote more time toward your health and fitness while building community on campus. You may also be eligible to win prizes such as t-shirts and water bottles. Stay tuned for more information about this campus-wide health and fitness program by reading your campus news e-mails this month. You may also call the Faculty Center at 823-3544 to get more information.

### Faculty Forum

#### February 2003 Forum Question

In her October 11, 2002 article for *The Chronicle of Higher Education* entitled "We Are Smarter Than Our Students," Dr. Miriam Kalman Harris accuses students of lacking respect for classmates, professors, and learning. She blames a trend she calls "consumer education" which puts education behind student satisfaction.

Several UCF faculty members have reacted to this article, both in favor of Harris' claims regarding student behavior and strongly against her argument. Please read her essay, online at <<http://chronicle.com/chronicle/archive.htm>> if you are a registered user or here in the Faculty Center, and then weigh in with your response at <<http://www.fctl.ucf.edu/forum>>. You may address the article directly or any of the responses by your peers. The most cogent response will earn a prize and recognition in the *Faculty Focus*.

The March 2003 *Forum* question will target the role of critical thinking goals in our curricula and will ask you to share your practices with your colleagues. We are pleased to announce that Judy Ruland will present a series of workshops on critical thinking through the Faculty Center from February 10 to March 10. Check our calendar for specifics.



### UCF Relay For Life 2003

The Relay for Life is the American Cancer Society's signature event and the number one non-profit special event in the country. UCF will host the Relay on April 4th and 5th at the UCF track. If you are not on a team but would like to be, come join "Clio's Chroniclers" at the Faculty Center. For more information go to

<[http://www.cancer.org/docroot/GI/gi\\_1.asp](http://www.cancer.org/docroot/GI/gi_1.asp)>

or see our webpage at

<<http://www.fctl.ucf.edu/events/relayforlife/>>

As part of its fund raising program for the Relay, the Faculty Center will sponsor a garage sale on March 8th. If you would like to donate items for the garage sale, please contact us at 823-3544 by March 6th.

Additionally, Alison Morrison-Shetlar, Ruth Marshall, and Judy Welch are currently weaving a special quilt, which will be offered by chance drawing to be held on April 4th. For more information contact the Faculty Center.



## ***Teaching Related Conferences***

### **Annual Conference on the First-Year Experience**

February 21-25, 2003  
Atlanta, Georgia  
[www.sc.edu/fye/conferences/2003west/2003west.pdf](http://www.sc.edu/fye/conferences/2003west/2003west.pdf)

### **The 24th Annual Sharing Conference: "Establishing & Sustaining Faculty Development Centers"**

March 9-11, 2003  
Atlanta, Georgia  
<http://www.utc.edu/Teaching-Resource-Center/SRFIDC/>

### **Lilly Conference on College & University Teaching - West**

March 14-15, 2003  
Pomona, California  
<http://www.iats.com/>

### **EDUCAUSE Midwest Regional Conference**

March 25-26, 2003  
Chicago, Illinois  
[www.educause.edu/conference/mwrc/2003/program.asp](http://www.educause.edu/conference/mwrc/2003/program.asp)

### **American Educational Research Association "Accountability for Educational Quality: Shared Responsibility"**

April 21-25, 2003  
Chicago, Illinois  
[www.aera.net/meeting](http://www.aera.net/meeting)

### **Stepping Up to the Plate in Diversity Education: A Best Practices Conference for Educators and Administrators**

April 25-26, 2003  
Atlanta, Georgia  
[www.kennesaw.edu/diversity](http://www.kennesaw.edu/diversity)

### **The SUN Conference on Teaching and Learning**

May 7-8, 2003  
El Paso, Texas  
[www.utep.edu/cetal/sun/](http://www.utep.edu/cetal/sun/)

### **CUMREC 2003: Leveraging the Magic of Information and Technology**

May 11-14, 2003  
Orlando, Florida  
[www.cumrec.org/cumrec2003/program.asp](http://www.cumrec.org/cumrec2003/program.asp)

### **The 28th International Conference on Improving University Teaching (IUT)**

Pre-Conference Tour June 13-15, 2003  
June 16-19, 2003  
VAXJO, Sweden  
[web.jmu.edu/iutconference](http://web.jmu.edu/iutconference)

### **2003 AAHE Assessment conference: Richer and more coherent set of assessment practices**

June 22-24, 2003  
Washington State Convention and Trade Center  
Seattle, Washington  
[www.aahe.org/assessment/2003](http://www.aahe.org/assessment/2003)

### **Eighth Annual AAHE Summer Academy**

July 16-20, 2003  
Snowbird, Utah  
[www.aahe.org/summeracademy](http://www.aahe.org/summeracademy)

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## ***Submissions***

The *Faculty Focus* is a publication for all instructors at the University of Central Florida. This includes full- and part-time faculty and teaching assistants at all UCF campuses. Its purpose is to provide an exchange of ideas on teaching and learning for the university's community of teachers and scholars. It is envisioned that this publication will inspire more dialogue among faculty, whether in hallway discussions, departmental meetings, or in written articles. Toward this latter goal, the *Faculty Focus* will lead to an annual "Best Practices" edition where some of the ideas that were generated in the bi-semester editions will be expanded and developed into full articles. The annual edition will be peer-reviewed and disseminated regionally. This represents an opportunity for faculty to reach their peers throughout the growing Central Florida community. The *Faculty Focus* invites you to contribute your ideas on teaching and learning in a short essay <see the guidelines for submission online at [www.fctl.ucf.edu/focus/guidelines.htm](http://www.fctl.ucf.edu/focus/guidelines.htm)>. Publication dates will be the middle of the first and last full months of each semester, and submission deadlines will be the Friday of the week prior. MLA format is preferred. Please send your submissions to *Faculty Focus*, [fctl@mail.ucf.edu](mailto:fctl@mail.ucf.edu).

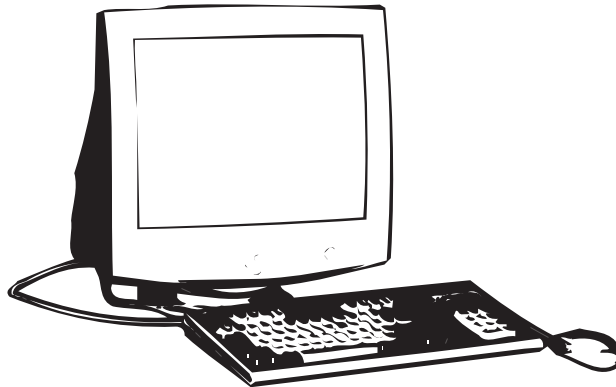
Eric Main, *Editor*

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***Check us out Online!***



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