Introduction

The enormous growth of web-based instruction has presented educators with both opportunities and challenges. Many critics of online education identify the interactivity of the traditional classroom as a formidable challenge—and a vital, yet missing, part of web-based instruction. Three areas of interaction are typically identified as meaningful interaction in online and distance education courses: (a) learner-content interaction, (b) learner-instructor interaction, and (c) learner-learner interaction (Moore & Kearsley, 1996).

I have used my learning-centered strategy Bring Your Own Bibliography (BYOB) most often in the virtual learning environment (VLE) and with graduate students to encompass Moore and Kearsley's three areas of meaningful interaction. While Bring Your Own Bibliography can be implemented in VLE's with ease, it can also be readily applied and transferred in the F2F classroom and in undergraduate instruction. Students, at all levels, can benefit from a "virtual" building of a bibliography as BYOB helps them to hone their research and writing skills.

The Procedure

How does BYOB work? I provide a given question or prompt for students to research and reflect upon. I then require students to write mini-papers or scholarly reactionary comments. Comments must be supported by citations from the current literature. As students provide their individual comments and scholarly posts, a useful topical bibliography with multiple source citations is created. The instructor can analyze, synthesize, edit and redistribute the resulting topical bibliography to the entire class by electronic cutting and pasting. The bibliography can also be recycled for use as supplemental readings in future semesters. A modified version of BYOB requires that students annotate the bibliography.

Dr. Ruby Evans is Associate Professor of Higher Education and Policy Studies. She also serves as Coordinator of the Community College Program at UCF, which includes the Ed. D., and Extended Content Masters of Arts degrees, and the Graduate Certificate in Community College instruction.

Goal

The goal of BYOB is to encourage students to act, interact and react through a merger of (a) scholarly research, (b) scholarly writing, inclusive of APA format, and (c) ongoing dialogue in a collaborative learning community.

Originality

Through participation in a Bring Your Own Bibliography activity, students are afforded the opportunity to engage in: 1. Active research: Students must actively seek relevant sources. 2. Evaluation and review of published research literature: Students must analyze sources found for relevance to given assignment. 3. Scholarly writing through informal posts in the online virtual learning environment: Students must write a response to the given assignment and support their position, based on research literature.

...continued on page 2
An Activity-based Curriculum for Large Introductory Physics Classes

Jeff Saul

Dr. Jeffery M. Saul is a physics education researcher and Assistant Professor of Physics at UCF. His research and teaching focus on activity-based instruction with minimal lecture in introductory physics and physical science classes. For more information on his projects, go to <www.physics.ucf.edu/~peg> or email him at saul@physics.ucf.edu.

It is known that students can learn more physics in classes where they interact with faculty, collaborate with peers on interesting tasks, and are actively involved with the material they are learning. Research on learning and curriculum development has resulted in instructional materials that correct many of the shortcomings of traditional physics instruction. Careful study of these research-based introductory curricula in small classes indicates that they can significantly improve students’ conceptual understanding and problem solving skills. However, introductory physics instructors with large classes who want to incorporate active learning into their classrooms must typically choose between hands-on activities in small class sections that supplement the lecture/laboratory format with 4-6 hours of activity-based instruction per week, typically in 2-hour blocks. Since the entire class is taught in the same room with the same students and instructors in each class, the laboratory and other activities can be arranged to build on one another in sequence for greater learning impact than when taught in a small section running parallel to the lecture course. As with the research-based curricula described above, the students work through the activities in groups of 3-4 students each. However, both the activities and the classroom have been modified for larger student/faculty ratios of 25-33 to 1, which permits class sizes of 50-120 students. Thus SCALE-UP makes it practical to offer activity-based classes with integrated hands-on labs even at large universities like NC State and UCF where thousands of students are enrolled in the introductory physics classes each year. This type of class takes advantage of cooperative learning techniques and helps students form learning communities which can make education at large universities seem much less impersonal, particularly for students taking the main large introductory classes in their freshman and sophomore years.

The main learning objective of the SCALE-UP courses is to help students build a good functional understanding of physics and develop problem-solving skills so that they can use what they learn to solve problems in new contexts. This objective can be broken into the following 6 measurable outcomes.

1. understand and be able to apply fundamental physics concepts.
2. begin to develop expert-like problem solving skills.
3. be able to address and solve complex problems.
4. improve communication, interpersonal, questioning, & teamwork skills.

Students should:

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Leamnson supports claims by many college instructors that teaching first year students is becoming more difficult because students are less prepared. Prior efforts at remediation and "transferring" skills, however, are not encouraging. A more effective strategy, he insists, is to focus on the central obstacle to student success-language use. He believes most of what is especially "new" pedagogical tools are simply repackage old teaching strategies now formalized and validated. Technologies and techniques are generally peripheral to core issues of interactive teaching which build upon discourse. He urges instructors to clearly articulate their teaching philosophy and their definition of learning, to restructure their pedagogy around the language of their discourse, to know their students well, to believe in their mission, and to embrace the work of achieving long-term goals. Leamnson situates his argument within the context of brain-based learning and relies much on the work of Lev Vygotsky and Neil Postman. He believes most learning occurs-and should occur outside of the classroom, while classroom time is best spent in activities which inspire the student to "struggle with the discipline, both inside and outside the classroom."

The SCALE-UP students demonstrated better attendance and participation in class discussion. Students asking more and deeper questions on the presentations of their solutions to complex problems, and in-class activities as well as student use of multimedia technology are taught at large colleges and universities.

The overall course failure rate \( (>25\%\) \) was cut in half-even as we demanded higher performance and more work from the students. Females and minorities seem to especially benefit from this new learning environment. Their respective failure rates dropped to 1/3 and 1/4 of the rates in our traditional sections of these courses. In focus groups, in student surveys, in faculty, and in department evaluations, SCALE-UP students indicate they recognize they are doing more work than the regular classes, but they feel it is worth it because they are developing a deeper understanding of the course material. Over 70\% of the students prefer SCALE-UP to traditional lectures.

In 4 years of teaching SCALE-UP classes, we have seen the following improvements compared with students in the regular lecture classes:\n
5. develop good laboratory skills including being able to design, carry out, and analyze an experiment.
6. use computers to look up information, take and analyze data, run simulations, and to develop mathematical models of physical situations.

In addition, we also wanted to reduce the high failure rate \( (>25\%\) \) of introductory physics students and have students perceive the SCALE-UP classes as a positive physics learning experience.

For 3 years, the SCALE-UP team at NC State and UCF have worked with both semesters of the calculus-based physics sequence that is particularly as "new" pedagogical tools are simply repackage old teaching strategies now formalized and validated. Technologies and techniques are generally peripheral to core issues of interactive teaching which build upon discourse. He urges instructors to clearly articulate their teaching philosophy and their definition of learning, to restructure their pedagogy around the language of their discourse, to know their students well, to believe in their mission, and to embrace the work of achieving long-term goals. Leamnson situates his argument within the context of brain-based learning and relies much on the work of Lev Vygotsky and Neil Postman. He believes most learning occurs-and should occur outside of the classroom, while classroom time is best spent in activities which inspire the student to "struggle with the discipline, both inside and outside the classroom."

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Word of SCALE-UP's success is spreading. SCALE-UP classes in chemistry and physical science have been taught at UCF and NC State. In addition, over 20 faculty and administrators from other institutions have come to visit the recently completed UCF SCALE-UP classroom. In addition, 11 other colleges and universities including MIT have committed to adopting this approach for introductory physics classes and are expected to offer their own SCALE-UP classes by the end of the current academic year. Even though most of the interest expressed so far has been in physics, it is important to realize that the SCALE-UP approach to teaching the beginning physics courses of up to 120 students has the potential to radically change the way classes that make use of collaborative learning and in-class activities as well as student use of multimedia technology are taught at large colleges and universities.

Dr. Saul's References and Figures can be found at <www.fctl.ucf.edu/focus>.
Making it New: Teaching Early American Women on the Web
Lisa Logan

Lisa Logan is Associate Professor of English and, since August 2002, Director of the Women's Studies Program in CAS. Her research interests include early American women's popular fiction and personal narratives of travel, captivity, domestic abuse, and slavery, and she has published and given workshops on feminist pedagogy. She teaches courses in American Literature, Women's Literature, Feminist Theory, and Women's Studies, all of which she has adapted to the web.

To most undergraduate English majors, early American women's literature, my scholarly specialty, is a tough sell. Most students will tell you that little of literary importance was written before 1900 and that women's writing produced before 1900 is certainly not "literature" and probably written in "bad" Middle English. Non-majors taking my courses not to fulfill a Women's Studies minor are surprised to learn that 17th- and 18th-century women wrote at all. Each new semester demands that I get through preconceptions and even terror of the unknown to what, how, and why early American women wrote and why their work should matter to us today. In navigating the scholar/student and early-/contemporary American divides, my students and I practice a variety of cultural translation processes on a daily basis. Curiously, and happily, these texts, produced in a culture and a language at once familiar and alien, seem to transform in the context of a contemporary medium—the web.

My students face the challenge of translation. What is this stuff? How are we supposed to analyze or interpret it, especially when it's all we can do to understand its literal meaning? Because women were wives and mothers first, their readers and writers second or third, and because they wrote in a culture that was ambivalent toward and suspicious of their public speech, much of their work survives in letters, epistles, sampler verses, journals, diaries, household manuals, travelogues, captivity and slave narratives, and (finally, something we recognize!) novels. Students' presentist paradigms about what constitutes or offers little assistance with these seemingly artless artifacts.

The problem of translation is not unique to my students. I too must generate strategies for translating women's writing into contemporary terms. It's a tricky line to walk: Steeped in the age of self-revelation as entertainment, students fed on Oprah and Ricki see poorer versions of themselves and are unmoved by the "whining" of captives and "clinically depressed" Quaker converts. Students must develop culturally layered ways of looking and complicating their presentist paradigms with those that are more consistent with early American writers and readers. At the same time, they must maintain the limits of translation. As critic Doris Sommer writes, some texts also should remain opaque or untranslatable and engage us with their difference.

To address the problem of translation, I develop web-based assignments, drawing on the core values of feminist pedagogy and Women's Studies: classroom interaction, student ownership of and responsibility for materials, and the importance of collaboration among peers. In private, small group discussion forums on WeBCT, students respond to role-playing prompts. These prompts ask students to perform a sort of cultural translation, to inhabit the language of early American women writers. Some examples from my lesson on Elizabeth House Trist's cryptic travel diary follow:

- Trist's travel diary breaks off just before she reaches Natchez. Imagine that you do some literary sleuthing in archives and discover a missing page. What does it say?
- Both Trist and Ashbridge were Quaker women who lived in the Philadelphia area and traveled quite a bit. Ashbridge died nearly 30 years before Trist embarked, but Quakers believe in spiritual visions. Along the road, Ashbridge appears to Trist in a dream. What does the dream say?
- Trist travels with a companion, Polly. Who is she and, if she kept a diary, what would a page in it say?

In short sketches and monologues such as these, students adopt the language, idioms and, consequently, try on and practice the manners and mindsets of early American women writers. The fiction of imaginary scenes enacted in a virtual space overcomes initial shyness and permits risk-taking (and even hilarity and over-the-top fun) that face-to-face meetings don't necessarily enable. Moreover, creative responses demand a deeper level of knowledge and preparedness. By occupying their roles and using their language, students must play by many of the same rules as early American women writers. These linguistic and stylistic choices mirror the challenges that women authors faced as they confronted and/or resisted dominant cultural constructions of gender.

As a scholar and a teacher of literature and Women's Studies, I care deeply about the recovery of early American women's lost words. My students remind me that recovery occurs in a contemporary space, and that I am, as they are, taking risks, collaborating, and always translating...
Service Learning: A Union of Study and Service
Cheryl Hamel

Cheryl Hamel is a Research Associate for the Institute for Simulation and Training (IST) and an Adjunct Professor in the Department of Psychology. Dr. Hamel is director of the Cognition and Technology Laboratory at IST and has chaired numerous research projects involving the design, development, and implementation of simulation and training systems. She has a wide range of publications and numerous presentations related to human factors and instructional design guidelines for computer-based training and Web-based instruction. Dr. Hamel holds a doctoral degree in Experimental Psychology.

Service learning is a union of academic study and service to the community. Because of my sincere belief in the academic relevance of learning outside the classroom, I am currently incorporating a "service learning" component in my psychology course, PSY3214: Research Methods in Psychology. In this class, my students have the option to participate in research studies for extra credit. In order to provide a sense of self-fulfillment, I allow service learning to be substituted for research participation. I allow one point extra credit for one hour of service learning and accept up to 10 hours, just as I do for research participation.

The procedure for service learning is pretty simple. First, students find a non-profit organization and set up an arrangement to volunteer. I give a few announcements of volunteer opportunities in class, voluntary participation in research studies conducted by the Department of Psychology can be very enlightening. However, I see the value of service learning, too, especially for those students planning to seek employment in the social services once they graduate. The experience gained through service learning will look very good on a resume.

In promotion for each speech, I highlight the areas where group support is most needed. I also encourage students to share experience and advice with the whole class. For example, when I assign the first research speech, I ask the strong researchers to lead a class activity in which they brainstorm a topic, develop a research list, and evaluate the credibility of sources. When we prepare for the Informative Speech using Power Point as a visual aid, I ask the strong Power Point users to help me teach the introduction to Power Point.

Assessment
The best part of skill-sharing is that the end products, their speeches, are quality controlled by the group. Everyone in the group can ask the "outstanding expert" to check their format before they finalize it. Everyone can get a check on the completeness of their citations before I see them. Everyone can call someone in the group for help with Power Point or finding a novel topic or coming up with a powerful introduction. And the group feels it has succeeded when everyone does a great job. While I do not encourage competition between groups (in fact, I try to discourage it), the end result is collectively pride in the quality of speeches given by members of the group.

Conclusion
My next goal is to get students to form on-line groups using Web-CT or E-Groups. This will make out-of-class interaction easier! Students are motivated to engage in service learning because it gives them job experience, they have a chance to get extra points, and most achieve a sense of self-fulfillment.

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What Makes a Good Teacher? Passionate, Compassionate, and Dispassionate

Jeff Kaplan

I have been teaching all my life. Or at least, from the age of 15. I began at a summer camp as counselor-in-training, and I have never really done any other work since. (Oh, yes, I was an usher in a movie theatre once, but not for long. Just as long as to memorize practically the entire original Charleton Heston movie of Planet of the Apes, but that is another story.)

No, my teaching career began at 15 years of age at a 4-H summer sleep-away camp in Riverhead, New York, on the northeastern shore of Long Island. There, I taught science (not for any deep abiding love for science, but because they had an opening for a science teacher, and I wanted to teach), spent about 10 glorious summers (first as counselor, then unit leader, then camp director), and there, across a crowded campfire, I met my wife, another dedicated and passionate teacher.

In the intervening years, I have taught nearly every grade level, and sometimes, it seems nearly every subject. When I taught middle school and high school, I taught English, and drama, but as schools are wont to be, teachers usually tutor young people in everything imaginable—as situations and circumstances warrant.

I have also had the privilege of observing teachers in action. As both a public school and college education instructor, I have visited schools and seen young and old alike, practicing the art and craft of teaching, and have always remained amazed at the dedication, effort, and time required to do this job “just right.”

With this in mind, I have developed a “guide” for what makes a good teacher. (We all have theories; please indulge mine.) It is by no means inclusive, and of course, added ingredients for what makes good teaching can always be added to the mix, but after now years of observation and contemplation, I submit to you what I consider to be the essential elements for smart, engaging, and purposeful instruction.

Passionate

Good teachers are passionate. They believe that what they are teaching, and in essence, doing, are of paramount importance to not only their own educational future, but to the learning of others. They believe that their love for their subject matter imbues them with a sense of purpose, and that their love and enthusiasm for their teaching about their subject matter can be translated to others.

Strong, dedicated, passionate teachers are the living embodiments of their subject matter. We all remember teachers in our lives who, somehow, seemed to be emblematic of their discipline. They imbued their love for their discipline in everything they did—from writing memos to lecturing on the fine points of their subject matter—and they filled their classes with an enthusiasm for “learning for the sake of learning.”

Moreover, their joy and passion for instruction seemed to infect others. You were excited about their subject matter because they were. You felt the thrill of their exploration and explanation of their interests because, somehow, they translated that sheer ecstasy for learning—even something you might not have ever considered interesting—onto your being, making you feel, somewhat, the same joy and enthusiasm that they did for their own subject matter.

This joy—this sheer, unbridled, and unencumbered passion for learning for the sake of learning—is what defines masterful, passionate teachers. You know that these folk—sometimes far far in-between—are not just going through the motions of teaching, but are the “living embodiments of their art” and the “passionate leaders of their discipline.” They are rare souls, often-unsung heroes, but when encountered, they fill our souls with a lifetime of precious and enduring memories.

Compassionate

Good teachers are compassionate. They realize instinctively that their students come before their subject matter. They realize that what they know is not what matters most; it is what their students know. Yes, they have standards, and yes, they value knowledge, but what they value more is understanding.

Compassionate teachers recognize that knowledge for knowledge’s sake is not a goal in and of itself, but simply a means to ignore the realities of instruction. For what good is teaching if teachers do not recognize “whom” they are teaching? Can we impress our students with what we know, and can we assess their knowledge in a multitude of ways to determine what they know, but what good is all this assessment if we really do not know what our students are capable of knowing? Good teachers recognize that every class and individual comes with their own set of unique problems, and that their inconsistencies and contradictions make for interesting, engaging, and above all, compassionate instruction.

For if students have concerns—about lectures, readings, assignments—it is the instructor’s job to make sure that these questions are not only answered, but the reason for those questions to be asked in the first place, are learned. No student should feel that they are arbitrary students in a sea of nameless faces. Instead, good teachers recognize the individuality of their students—even in a sea of seemingly thousands—and these same good teachers, find ways to make the seemingly impersonal seem most personal.

Moreover, good teachers recognize that often their students are coming to their subject matter for, what seems to them, the very first time. Even if they have had their discipline in high school or earlier, good teachers recognize that these very same students might have accidentally forgotten all they knew. Knowing something for a test and remembering something about the same material years later are two disparate phenomena. Good teachers know this. Bad teachers assume too much.

Dispassionate

Above all, though, good teachers are dispassionate creatures. Yes, they love their subject matter, and yes, they feel for their students, but above all, they recognize that they must be impartial observers of their students’ performance.

They cannot play favorites, or do for one what they do not do for another. Instead, they must recognize—like a judge on the bench—that every student should be treated with the same respect and accord as everyone is duly warranted. They must recognize that teaching is really playing a delicate balance—between passion and compassion—and that such practice takes years of experience and intuition to perfect.

Good teachers recognize that even seemingly good students falter, and that no matter how difficult it might be to penalize such students, that often, it is necessary. Although we would like to reward all students equally, it, unfortunately, does not follow through in practice, and that sometimes even our supposed “best students” fail us, and the disappointment can be real, significant, and heartbreaking.

This is not an easy task. There are always—no matter what we teach or who we are—students we favor, and exceptions we would love to make—but, we know, that often making exceptions can lead to unfortunate consequences.

This does not mean that teachers should never make exceptions. It just means that, when they are made, proper justification can be said.

Conclusion

Teaching—good, smart, compassionate instruction—takes a lifetime to perfect. “Artistry in teaching involves three components: (a) pursuing educational aims of high worth, (b) using creative ways to achieve these aims, and (c) pursuing these aims with skill and dexterity.” (Rubin, 1985)

Knowing what to say and when to say it is an art in and of itself. Sometimes a lifetime of great teaching can be erased by a careless slip of the tongue or an inept or uninformed consideration. That is why good teachers imbue their teaching with a sense of purpose and style. They fill their classrooms with their own passion for learning, with their own compassion for the instruction of others, and with their own principled and modeled excellence for the pursuit of truth for all those they teach.

Such teachers are rare, but when encountered, their presence lasts a lifetime.

Reference
What Makes a Good Teacher? Passionate, Compassionate, and Dispassionate

Jeff Kaplan

Jeffrey S. Kaplan, Ph.D. Associate Professor of Educational Studies, College of Education, and Senior Faculty Fellow, Office of Academic Affairs (2002-03). His research interests include curriculum-decision making, reflective practice, and analysis of critical issues in education.

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Context

To group or not to group? Is that the question? It shouldn’t be. More than 50 years of research in group dynamics, instructional communities, and collaborative learning has shown that grouping students increases the amount of learning, improves retention of information, increases course completion rates and ensures a more positive attitude toward subject matter. The real question is how to group students to maximize these positive outcomes while minimizing the “hassle” that teachers often associate with classroom groups. In my speech classes I have developed a grouping scheme that does both.

When students arrive in my required Fundamentals of Speech class, they are operating at many different levels of
Service Learning: A Union of Study and Service

Cheryl Hamel

Cheryl Hamel is a Research Associate for the Institute for Simulation and Training (IST) and an Adjunct Professor in the Department of Psychology. Dr. Hamel is director of the Cognition and Technology Laboratory at IST and has directed numerous research projects involving the design, development, and implementation of simulation and training systems. She has a wide range of publications and numerous presentations related to human factors and instructional design guidelines for computer-based training and Web-based instruction. Dr. Hamel holds a doctoral degree in Experimental Psychology.

Service learning is a union of academic study and service to the community. Because of my sincere belief in the academic relevance of learning outside the classroom, I am currently incorporating a "service learning" component in my Psychology course, PSY3214: Research Methods in Psychology. In this class, my students have an option to participate in research studies for extra credit. In order to provide a sense of self-fulfillment, I allow service learning to be substituted for research participation. I allow one point extra credit for one hour of service learning and accept up to 10 hours, just as I do for research participation.

The procedure for service learning is pretty simple. First, students find a non-profit organization and set up an arrangement to volunteer. I give a few announcements of volunteer opportunities in class, voluntary participation in research studies conducted by the Department of Psychology can be very enlightening. However, I see the value of service learning, too, especially for those students planning to seek employment in the social services once they graduate. The experience gained through service learning will look very good on a resume.

In a Research Methods class, voluntary participation in research studies conducted by the Department of Psychology can be very enlightening. However, I see the value of service learning, too, especially for those students planning to seek employment in the social services once they graduate. The experience gained through service learning will look very good on a resume.

In Innovation

Students are motivated to engage in service learning because it gives them job experience, they have a chance to get extra points, and most achieve a sense of self-fulfillment. Journal entries are usually very positive, as indicated in the following example: "I have always wanted to be a teacher in a foreign language and volunteering at the middle school helped me out in a lot of ways. And I found that patience is the key to teaching. This experience has not discouraged me from teaching, but instead made me want to reach out to kids even more."
Making it New: Teaching Early American Women on the Web
Lisa Logan

Lisa Logan is Associate Professor of English and, since August 2002, Director of the Women's Studies Program in CAS. Her research interests include early American women's popular fiction and personal narratives of travel, captivity, domestic abuse, and, of course, adventure. She has also published and given workshops on feminist pedagogy. She teaches courses in American Literature, Women's Literature, Feminist Theory, and Women's Studies, all of which she has adapted to the web.

To most undergraduate English majors, early American women's literature, my scholarly specialty, is a tough sell. Most students will tell you that little of literary importance was written before 1900 and that women's writing produced before 1900 is certainly not "literature" and probably written in Middle English. Non-majors taking my courses not to fulfill a Women's Studies minor are surprised to learn that 17th- and 18th-century women wrote at all. Each new semester demands that I get through preconceptions and even terror of the unknown to what, how, and why early American women wrote and why their work should matter to us today. In navigating the scholar/student and early- and contemporary American divisions, my students and I practice a variety of cultural translation processes on a daily basis. Curiously, and happily, these texts, produced in a culture and a language at once familiar and alien, seem to transform in the context of a contemporary medium—the web.

My students face the challenge of translation. What is this stuff? How are we supposed to analyze or interpret it, especially when it's all的女人的 literature, my scholarly specialty, is a tough sell. Most students will tell you that little of literary importance was written before 1900 and that women's writing produced before 1900 is certainly not "literature" and probably written in Middle English. Non-majors taking my courses not to fulfill a Women's Studies minor are surprised to learn that 17th- and 18th-century women wrote at all. Each new semester demands that I get through preconceptions and even terror of the unknown to what, how, and why early American women wrote and why their work should matter to us today. In navigating the scholar/student and early- and contemporary American divisions, my students and I practice a variety of cultural translation processes on a daily basis. Curiously, and happily, these texts, produced in a culture and a language at once familiar and alien, seem to transform in the context of a contemporary medium—the web.

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In short sketches and monologues such as these, students adopt the language, idioms and, consequently, try on and practice the manners and mindsets of early American women writers. In short sketches and monologues such as these, students adopt the language, idioms and, consequently, try on and practice the manners and mindsets of early American women writers. THE FICION OF IMAGINARY SCENES ENACTED IN A VIRTUAL SPACE OVERCOMES INITIAL SHYNESS AND PERMITS RISK-TAKING (AND EVEN HILARITY AND OVER-THE-TOP FUN) THAT FACE-TO-FACE MEETINGS DON'T NECESSARILY ENABLE.

Faculty Forum

At a recent conference on teaching and learning a faculty member presented his research on how he started to help faculty at his institution become motivated to think about their teaching practices. The first question he asked the faculty was: I imagine a teaching and learning environment where you could have anything you wanted. What would it look like? The ideas and suggestions that were submitted started a discussion across campus about the role of teaching and learning, the diversity of students, their level of preparation, as well as types of facilities and support services on campus. I have asked the faculty members from last month's Faculty Forum to initiate the same type of discussion among peers at UCF. Take a moment to reflect on this question and then write your thoughts on what you a great learning environment means to you. You could win a digital camera for your ideas. Go to <www.fctl.ucf.edu/forum>.

University of Central Florida Service Learning

Embedded in serious scholarship is the challenge of translation. What is this stuff? How are we supposed to analyze or interpret it, especially when it's all

Faculty Forum October Winner

We had excellent submissions for last month's Faculty Forum question, which was "What is your teaching philosophy and how do you practice it?" It was hard for the committee to decide on a winner. Congratulations go to Ruby Evans, the winner of a digital camera, for her philosophy and implementation ideas. The participants have all been willing to have their philosophies published in this space. You can read their responses at <www.fctl.ucf.edu>/, or if you are thinking about generating your own teaching philosophy, you have some examples to look at.

Teaching Early American Women on the Web

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 diverse, discipline-specific and collective efforts arise from complex, dynamic, and interdependent relationships between peoples and between people and their environments. And we recognize that students, 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 between faculty and between programs 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 Service Learning initiative as well as the preparation, organization, and implementation of linking courses, formerly the LINC program. Your suggestions and participation are needed. Please contact us if you are interested.

Final Reminder Summer Institute 2002 Reports

Faculty participants in the Faculty Development Summer Institute 2002 are reminded that their final reports of progress on course/curricular innovations are due to be submitted ... Be sure to include the names of all team members. Please contact our office if any assistance is needed.

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FYE: TEACH Act Becomes Law

On November 2nd President Bush signed the Technology, Education, and Copyright Harmonization Act (TEACH Act) into law in H.R. 2215. The Act amends copyright law to allow nonprofit educational institutions to use the Internet to provide copyrighted material to registered students taking part in "mediated instructional activities." Institutions utilizing TEACH are required to educate their communities on U.S. Copyright Law, and install "reasonable" technology protection measures to prevent the unauthorized retention and redistribution of copyrighted material. Copyright EDUCAUSE 11/12/02
Suggested Reading from the Faculty Center Library

Thinking about Teaching and Learning: Developing Habits of Learning with First Year College and University Students by Robert Leamnson

Leamnson supports claims by many college instructors that teaching first year students is becoming more difficult because students are less prepared. Prior efforts at remediation and "transferring" skills, however, are not encouraging. A more effective strategy, he insists, is to focus on the central obstacle to student success—language use. He believes most of what is specially as "new" pedagogical tools are simply repackaged old teaching strategies now formalized and validated. Technologies and techniques are generally peripheral to core issues of interactive teaching which build upon discourse. He urges instructors to clearly articulate their teaching philosophy and their definition of learning, to restructure their pedagogy around the language of their discourse, to know their students well, to believe in their mission, and to embrace the work of achieving long-term goals. Leamnson situates his argument within the context of brain-based learning and relies much on the work of Lev Vygotsky and Neil Postman. He believes most learning occurs—and should occur outside of the classroom, while classroom time is best spent in activities which inspire the student to "struggle with the discipline, both inside and outside the classroom." The instructor should use a variety of delivery methods, shifting from one to another as appropriate and to avoid establishing routines. He continues with a discussion of technologies in education, writing as a teaching and learning technology, the computer, the web, etc. But no technology, he claims, can solve society's or education's problems. Leamnson concludes with a call to focus on the humanity of teaching, on critical self-assessment, on lifelong learning, and on finding the middle road.

Faculty Center Showcases

UCF Artist Kevin Haran

Kevin Haran, Instructor of Art (Drawing) M.F.A., University of Tennessee. Kevin Haran has a B.F.A. in Studio Art and a B.A. degree in Art History from the University of Central Florida. He earned an M.F.A. degree in Painting/Drawing from the University of Tennessee, Knoxville in 1991. Haran was Associate Curator of Education at the Knoxville Museum of Art and currently teaches studio art at the University of Central Florida. He is also the Gallery Director at UCF and Director of the Art Department outreach program PAVE.

Come by the Faculty Center in CL1-207 to view some of Kevin Haran's artwork. Additionally, we extend an invitation to all faculty artists to consider showing some of their work at the center.

Faculty Center Funding Opportunities

Winter Faculty Development Conference

Submissions for the Winter Conference are in. This year, teams of faculty have been encouraged to submit a single proposal that will (1) impact several courses within a curriculum, (2) impact interdepartmentally across courses, and/or (3) deal with the development of service learning. We hope that this new model will encourage significant and sustainable curricular change. The Winter Conference runs 10 - 12th December, 2002.

Summer Faculty Development Conference: Apr 28 - May 2

The Faculty Center for Teaching and Learning will provide a limited number of grants for faculty who are transforming courses along the lines of linked courses, service learning, large classes, etc. Faculty from all colleges are invited to apply. Please submit your RFP to fctl@mail.ucf.edu by February 7, 2003. The RFP can be found at the FCTL website <www.fctl.ucf.edu>.

Collaborative Learning & Studio Classroom, Spring Series: Jan 24, Feb 7, Mar 7, Apr 4

The Faculty Center for Teaching and Learning is calling for submission of proposals by any UCF faculty who have an interest in collaborative learning in any teaching environment or an interest in teaching a course in one of the studio classrooms in the Classroom Building (CL1). Faculty will participate in four workshops (total of 12 hours) and receive support from the Faculty Center and OIR to develop an approach or material for their classes. Academic Affairs, the Faculty Center and OIR will provide grants for faculty who are transforming their classes to take advantage of the new collaborative learning with technology rooms in CL1. Please submit your RFP to fctl@mail.ucf.edu by January 24, 2003. The RFP can be found at the FCTL website <www.fctl.ucf.edu>.

5. develop good laboratory skills including being able to design, carry out, and analyze an experiment.
6. use computers to look up information, take and analyze data, run computer simulations, and to develop mathematical models of physical situations.

In addition, we also wanted to reduce the high failure rate (>25%) of introductory physics students and have students perceive the SCALE-UP classes as a positive physics learning experience.

For 3 years, the SCALE-UP team at NC State and UCF have worked with both semesters of the calculus-based physics sequence that is particularly robust student difficulties, students asking more and deeper questions on the course material during class, and SCALE-UP students performed at least one laboratory activity where they designed and carried out an experiment to answer an open-ended question, and the overall course failure rate (3%) was cut in half even as we demanded higher performance and more work from the students.

Females and minorities seem to especially benefit from this new learning environment. Their respective failure rates dropped to 1/4 of the rates in our traditional sections of these courses. In focus groups, in-terviews with faculty, and in department evaluations, SCALE-UP students indicate they recognize they are doing more work than the regular classes, but they feel it is worth it because they are developing a deeper understanding of the course material.

Over 70% of the students prefer SCALE-UP to traditional lectures.

Word of SCALE-UP’s success is spreading. SCALE-UP classes in chemistry and physics have been taught at UCF and NC State. In addition, over 20 faculty and administrators from other institutions have come to visit the recently completed UCF SCALE-UP classroom. In addition, 11 other colleges and universities including MIT have committed to adopting this approach for introductory physics classes and are expected to offer their own SCALE-UP courses by the end of the current academic year. Even though most of the interest expressed so far has been in physics, it is important to realize that the SCALE-UP approach can be applied to all introductory courses of up to 120 students has the potential to radically change the way classes that make use of collaborative learning and in-class activities as well as student use of multimedia technology are taught at large colleges and universities.

Dr. Saul’s References and Figures can be found at <www.fctl.ucf.edu/focus>.

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Dr. Leamnson supports claims by many college instructors that teaching first year students is becoming more difficult because students are less prepared. Prior efforts at remediation and "transferring" skills, however, are not encouraging. A more effective strategy, he insists, is to focus on the central obstacle to student success—language use. He believes most of what is specially as "new" pedagogical tools are simply repackaged old teaching strategies now formalized and validated. Technologies and techniques are generally peripheral to core issues of interactive teaching which build upon discourse. He urges instructors to clearly articulate their teaching philosophy and their definition of learning, to restructure their pedagogy around the language of their discourse, to know their students well, to believe in their mission, and to embrace the work of achieving long-term goals. Leamnson situates his argument within the context of brain-based learning and relies much on the work of Lev Vygotsky and Neil Postman. He believes most learning occurs—and should occur outside of the classroom, while classroom time is best spent in activities which inspire the student to "struggle with the discipline, both inside and outside the classroom." The instructor should use a variety of delivery methods, shifting from one to another as appropriate and to avoid establishing routines. He continues with a discussion of technologies in education, writing as a teaching and learning technology, the computer, the web, etc. But no technology, he claims, can solve society's or education's problems. Leamnson concludes with a call to focus on the humanity of teaching, on critical self-assessment, on lifelong learning, and on finding the middle road.

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"The main learning objective of the SCALE-UP courses is to help students build a good functional understanding of physics and develop problem-solving skills so that they can use what they learn to solve problems in new contexts."

The curriculum materials include adaptations of research-based/informed activities from the physics education literature to the SCALE-UP classroom as well as activities developed specifically for SCALE-UP. The curriculum consists of short lab activities and problem sets from a variety of sources. The SCALE-UP students demonstrated better attention to detail (<5%) of introductory physics students and have students perceive the SCALE-UP classes as a positive physics learning experience.

For 3 years, the SCALE-UP team at NC State and UCF have worked with both semesters of the calculus-based physics sequence that is particularly robust student difficulties, students asking more and deeper questions on the course material during class, and SCALE-UP students performed at least one laboratory activity where they designed and carried out an experiment to answer an open-ended question, and the overall course failure rate (3%) was cut in half even as we demanded higher performance and more work from the students.

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“Significant gains on conceptual exam questions that SCALE-UP students outperform their peers on at least two-thirds of common exam problems), Better scores on common exam problems (SCALE-UP students outperform their peers on at least two-thirds of common exam problems), Significant gains on conceptual exam questions that SCALE-UP students demonstrate increased ability to address complex problems in new contexts by using an expert-like model will encourage significant and sustainable curricular change. The Winter Conference runs 10 - 12th December, 2002.

The overall course failure rate (3%) was cut in half even as we demanded higher performance and more work from the students.
4. An interactive, and collaborative learning community: Each time a student posts to the discussion board, other students and the instructor gain knowledge through information sharing or full bibliographic source citations.

Scope and Impact
Bring Your Own Bibliography has the potential to broaden the reading resources and knowledge base of students and faculty. The bibliography, whether or not annotated, that results from these interactive and collaborative posts can be synthesized for distribution, not only to the class, but to external audiences who may have an interest in the given topic area.

Transferability
Bring Your Own Bibliography can be readily transferred to any level of instruction in which students are required to act, interact, and react (in writing) on a given topic using sources from the literature.

Effectiveness (Time and Cost)
21st century teaching and learning environments encourage the use of the Internet/web and electronic databases for source citations and references. Bring Your Own Bibliography saves time for both students and instructors in web searches and web quests for relevant source citations. Each student collaboratively builds a substantive bibliography for a given topic or area of discussion. Student feedback indicates that the shared resources and sense of community is admirably contributive to a positive learning experience.

Reference

An Activity-based Curriculum for Large Introductory Physics Classes
Jeff Saul

Dr. Jeffery M. Saul is a physics education researcher and Assistant Professor of Physics at UCF. His research and teaching focus on activity-based instruction with minimal lecture in introductory physics and physical science classes. For more information on his projects, go to <www.physics.ucf.edu/~peg> or email him at saul@physics.ucf.edu.

It is known that students can learn more physics in classes where they interact with faculty, collaborate with peers on interesting tasks, and are actively involved with the material they are learning. Research on learning and curriculum development has resulted in instructional materials that correct many of the shortcomings of traditional physics instruction. Careful study of these research-based introductory curricula in small classes indicates that they can significantly improve students' conceptual understanding and problem solving skills. However, introductory physics instructors with large classes who want to incorporate active learning into their classrooms must typically choose between hands-on activities in small class sections or the lecture/laboratory format. Since the entire class is taught in the same room with the same students and instructors in each class, the laboratory and other activities can be arranged to build on one another in sequence for greater learning impact than when taught in a small class section parallel to the lecture course. As with the research-based curricula described above, the students work through the activities in groups of 3-4 students. However, both the activities and the classroom have been modified for larger student/faculty ratios of 25-33 to 1, which permits class sizes of 50-120 students. Thus SCALE-UP makes it practical to offer activity-based classes with integrated hands-on labs even at large universities like NC State and UCF where thousands of students are enrolled in the introductory physics classes each year. This type of class takes advantage of cooperative learning techniques and helps students form learning communities which can make education at large universities seem much less impersonal, particularly for students taking mainly large introductory classes in their freshman and sophomore years.

The main learning objective of the SCALE-UP courses is to help students build a good functional understanding of physics and develop problem-solving skills so that they can use what they learn to solve problems in new contexts. This objective can be broken into the following 6 measurable outcomes.

Students should:
1. understand and be able to apply fundamental physics concepts.
2. begin to develop expert-like problem solving skills.
3. be able to address and solve complex problems.
4. improve communication, interpersonal, questioning, & teamwork skills.

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Introduction

The enormous growth of web-based instruction has presented educators with both opportunities and challenges. Many critics of online education identify the interactivity of the traditional classroom as a formidable challenge—and a vital, yet missing, part of web-based instruction. Three areas of interaction are typically identified as meaningful interaction in online and distance education courses: (a) learner-content interaction, (b) learner-instructor interaction, and (c) learner-learner interaction (Moore & Kearsley, 1996).

I have used my learning-centered strategy Bring Your Own Bibliography (BYOB) most often in the virtual learning environment (VLE) and with graduate students to encompass Moore and Kearsley’s three areas of meaningful interaction. While Bring Your Own Bibliography can be implemented in VLE’s with ease, it can also be readily applied and transferred in the F2F classroom and in undergraduate instruction. Students, at all levels, can benefit from a “virtual” building of a bibliography as BYOB helps them to hone their research and writing skills.

The Procedure

How does BYOB work? I provide a given question or prompt for students to research and reflect upon. I then require students to write mini-papers or scholarly reactionary comments. Comments must be supported by citations from the current literature. As students provide their individual comments and scholarly posts, a useful topical bibliography with multiple source citations is created. The instructor can analyze, synthesize, edit and redistribute the resulting topical bibliography to the entire class by electronic cutting and pasting. The bibliography can also be recycled for use as supplemental readings in future semesters. A modified version of BYOB requires that students annotate the bibliography.

Goal

The goal of BYOB is to encourage students to act, interact and react through a merger of (a) scholarly research, (b) scholarly writing, inclusive of APA format, and (c) ongoing dialogue in a collaborative learning community.

Originality

Through participation in a Bring Your Own Bibliography activity, students are afforded the opportunity to engage in:

1. Active research: Students must actively seek relevant sources.
2. Evaluation and review of published research literature: Students must analyze sources found for relevance to given assignment.
3. Scholarly writing through informal posts in the online virtual learning environment: Students must write a response to the given assignment and their position, based on research literature.

...continued on page 2