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INTERNATIONAL SOCIETY FOR EXPLORING TEACHING & LEARNING

2003 CONFERENCE PROCEEDINGS

EDITED BY

Gail Rice

INTERNATIONAL SOCIETY FOR EXPLORING TEACHING & LEARNING

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1972-73	Ben Meleca
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1997-99	Shirley Rickert
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Using Digital and High-speed Video to Enhance Engineering Student Learning

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This 50-minute presentation will show examples of how digital and high-speed video can be used to enhance student learning in science and engineering courses. It will also explain and demonstrate the process of creating, editing, and posting the video clips on a website.

The target audience is faculty who may want to use digital video and/or high-speed video to create online demonstrations for their students. A goal of the presentation is to provide enough information, demonstrations, and examples to encourage and help others to pursue similar work. Someone starting from scratch may be too overwhelmed to pursue this technology. Also, a potential user may not perceive enough value added by the effort. Hopefully, the presentation will show that the task is not so daunting after all, and that the resulting product can be very effective in enhancing student learning.

Specific objectives of the presentation include:

- Show, through live demonstrations, how easy it is to create, edit, and post video clips on the web with minimal and easy-to-use hardware and software. I will discuss the required equipment and software and demonstrate how each step in the process is carried out. The steps include:
    - Using a consumer grade digital video camera to efficiently capture a demonstration or mini-lecture.
    - Editing and compressing the video using low-cost and easy-to-use software.
    - Posting the video clips on a website.

- Discuss the value of online digital video demonstrations. The value added includes instructional benefits for the students and advantages for the instructor. Some of the benefits and advantages include:
    - Students get excited about video clips in the classroom. The clips can make lectures more fun and interesting.
    - The video demonstrations can provide concrete, real-world examples to which students can relate.
    - Students can view the demonstrations as many times as they like and whenever they like via the web.
    - The online video demonstrations can provide access to equipment and hardware not readily available or safe for in-class use. A video clip can serve as a time and cost effective alternative (but not substitute) for a field trip or lab work.
    - Live in-class demonstrations have their disadvantages: things might not work properly, things can break, and it can be difficult or inconvenient to obtain and/or transport the materials and equipment. When created offline, multiple takes can be made and the video can be edited when mistakes are made.
    - Past student project demonstrations can be captured for future students to see.
    - Demonstrations can be projected onto a large screen for the whole class to see.

- Discuss the value of high-speed video demonstrations:
    - The super slow-motion playback allows the students to see physics and interactions that are not normally visible to the human eye.

- When the students are allowed to use the equipment, they come up with extremely creative ideas for visualization. They also have lots of fun.

- Show and discuss the value of several digital video and high-speed video examples I have created for my students. The examples will include:
  - Bowling alley mechanisms.
    - Shows working examples of classical linkage and cam mechanisms (e.g., the Peaucellier straight-line linkage). Also, a good example of demonstrations that would normally require a field trip.
  - Tipse Top advanced dynamics.
    - Illustrates principles of energy conservation, rotational stability, and gyroscopic effects.
  - Student mechatronics projects
    - Interesting and smart devices containing mechanical and electrical components. These examples from past students serve as inspiration and encouragement for current and future students.
  - Working internal combustion engine components.
    - Excellent example of many mechanical engineering principles. Also, a good example of demonstrations that would be difficult to do live in a classroom.
  - Billiards dynamics.
    - Examples of applied dynamics principles (conservation of linear momentum and energy, impact, and angular momentum) to which students can relate to and get excited about.
  - Piano and guitar harmonics and tone spectra.
    - Easy to understand musical demonstrations of complex signal processing principles (Fourier Series, spectra, and attenuation).
  - Dr. Dave's Top Ten student-created high-speed videos.
    - Examples of how allowing students to participate can bring fun and excitement to their experience.

- Provide enough information about the required equipment and software to enable others to pursue similar work.

All of the demonstrations I will show are accessible on the web at:

http://www.engr.colostate.edu/~dga/video_demos

and

http://www.engr.colostate.edu/~dga/high_speed_video

Technology and Assessing Workplace Competencies

Karen Arnold
New England Institute of Technology

This workshop is intended for college faculty, administrators, assessment coordinators, and community placement coordinators. Workshop participants will: identify professional development skills that prepare students for the workplace and lifelong learning; explore experiential teaching and learning strategies to foster the development of professional development skills essential to the workplace; and be introduced to interactive web-based technology as an assessment tool of these core competencies.

Primary tenets of the workshop:

- Goals of higher education are increasingly focused on producing student learning and the *application* of knowledge, skills, and attitudes.
- Industry employers prefer graduates with essential workplace competencies that are not traditionally included within specific course content areas.
- Professional development skills are most effectively developed within the context of real world experiences as students apply course theory to actual life problems and issues.
- Technology-based assessment techniques are effective in measuring the developmental process of student learning.

As higher education shifts focus from the pursuit of knowledge to the acquisition of applied skills in preparation for careers, colleges are increasingly incorporating essential workplace competencies into their curricula. This session explores the student's development of these qualities through an experiential pedagogy, utilizing an interactive web-based approach to assessment.

This interactive session addresses the increasing need for higher education to incorporate essential workplace competencies within their curricula to prepare students for successful integration into their careers. Skills such as leadership, teamwork, critical thinking, problem solving, ethics, effective communication, and ability to function in a diverse labor force transcend individual course content and are thus difficult to both teach and assess by traditional means.

Learning theories supporting experiential education are highlighted as an effective instructional method in the development of these core workplace competencies. Internships, service learning, and community-based course projects are examined as pedagogical approaches fostering the achievement of these essential workplace skills. Specifically, experiential education, the learning paradigm, inquiry guided learning, and theories of adult learning are explored.

Finally, interactive web-based materials are introduced as course-embedded assessment tools of student learning. This technological approach tracks the developmental process of student learning throughout the real world experience and provides valuable information about the student's ability to solve problems and address complex issues. Through web-based technology, students, instructors, and site supervisors communicate collaboratively on student progress. Key concepts include engagement, application of skills, relevancy to educational goals, and web-based communication.

Karen Arnold is the Assistant Provost, Academic Affairs at New England Institute of Technology. She has a strong experiential education background, provides administrative oversight of the college's Outcomes Assessment Task Force, and is coordinator of the college's 2003 decennial regional accreditation process. She has presented workshops at the 2001 and 2002 annual conferences of the National Society of Experiential Education, the 2001 annual conference of the Western Region Campus Compact, and the 2003 annual assessment conference of the American Association of Higher Education.

SO YOU WANT TO BE A STAR: PROFESSOR SEARCH !

Diane S. Aschenbrenner, MS, APRN-BC
Kathryn Kushto-Reese, MS, RN
And
Ronald A. Berk, PhD, CNN, BBC, DNA
The Johns Hopkins University
School of Nursing

Presentation Rationale and Description:

By a show of hands, how many of you use YOURSELF as an audiovisual to demonstrate concepts in your teaching? That's what I thought. It's so easy, because we're always in class. Other than lecturing, *you* can be a powerful teaching tool to address students' different learning styles and their multiple intelligences. You can even introduce your demonstration with music to trigger laughter and grab your students' attention.

The purpose of this session is to illustrate how to transform a verbal or quantitative concept, process, or problem into a visual image. That image may consist of you alone or with one or two other faculty, plus props or simple costumes. There are four steps involved: (1) the set up, (2) grabbing the students' attention, (3) executing the demonstration, and (4) post-demo follow-up. This session will use the concepts of relationships, tools, and stages to illustrate those steps.

You're probably thinking: "Why should I do this?" There are two primary reasons: (1) to improve your connection with your students, and (2) to tap several intelligences beyond the traditional verbal and quantitative to increase students' learning and academic success. This strategy also provides a springboard for follow-up active learning exercises.

The theoretical and research foundation for this technique is planted in Multiple Intelligence Theory and neurophysiological, psychological, educational, and TV advertising research on humor and cognition.

Objectives:

Workshop participants will:

- Understand how Multiple Intelligence Theory supports the integration of visual dramatizations or demonstrations of theoretical or conceptual material into didactic teaching.
- Recognize how basic verbal and quantitative concepts can be transformed into visual demonstrations.
- Recognize how a faculty member can serve as the audiovisual of a demonstration.
- In small groups, create a sample visual demonstration for a concept or theory.

Workshop Format:

1. An opening demonstration will be used to illustrate the major focus of the workshop.
2. A brief presentation will be given which provides the theoretical and research foundation for faculty participation in visual demonstrations.
3. Additional demonstrations will be used as examples of how faculty can transform a theoretical concept, process, or problem into a visual image.
4. Participants will then participate in an active learning exercise to practice developing a visual demonstration based on a given topic.
5. A volunteer group will perform their demonstration and participants will identify elements that made the demonstration effective.

Intended Audience:

This workshop is designed for faculty members who teach any type of didactic material in a traditional classroom setting.

Fifteen Classroom-Tested Techniques for Promoting Active Learning

Gregory Bassham, King's College
Henry Nardone, King's College

Introduction

ISETL is all about encouraging active student learning. Few conference attendees will need to be sold on the virtues of active learning; many can probably rattle off Mel Silberman's Activist Learning Credo by heart:

What I hear, I forget.
What I hear and see, I remember a little.
What I hear, see, ask questions about, and discuss, I begin to understand.
What I hear, see, ask questions about, discuss, and do, I acquire knowledge and skills about
What I teach to another, I master.

Rather than preaching to the choir about the benefits of active learning, I plan to do something that may be more useful. I shall share fifteen techniques for encouraging active learning that have proved successful in my own classes.

Some of these techniques (Reciprocal Peer Questioning, Socratic Interviews, Reader Response Logs, Peer Editing, Editorial Role Playing, The Three-Minute Paper, Readers' Questions, and Reasoning Sympathetically Within Alternative Frames of Reference) were borrowed from other instructors; others were created by myself. All have been tried successfully in several of my classes, including Critical Thinking, Introduction to Philosophy, Business Ethics, Science and Religion, and Environmental Ethics.

Format

After a brief introduction, I shall distribute a lengthy handout providing detailed information on the fifteen techniques. I shall then model at least one of the techniques (Testing Overconfidence) and possibly two if time permits. I will close by inviting questions and feedback from the audience.

Intended Audience

This session is intended for a general ISETL audience. It may be of special interest to teachers of Critical Thinking and Philosophy.

Workshop:

Peer Review a Course, *Food and Nutrition in Health,* Being Taught Live
At Colorado State University

John (Jack) S. Avens
Colorado State University
Fort Collins, CO

Objectives

1. Using criteria provided, observe and evaluate a live course while it is being taught at Colorado State University.
2. Observe pedagogy, including delivery style, and student reaction and interaction, in a classroom course while it is being taught.
3. Share your written peer evaluation with the teacher, and offer constructive criticism with suggestions for change.

Format

1. Sit in on entire 50-minute class meeting of ***FN 125, Food and Nutrition in Health*, Thursday, October 16, from 10:00 a.m. through 10:50 a.m., in room A 102, Clark Building, A-wing.**
2. Using criteria guidelines provided, critically evaluate the teaching effectiveness of the instructor, using student responses to your inquiries where possible.
3. Provide your written and/or verbal evaluation to instructor after the class meeting.

Profile of Intended Audience

1. College/university teachers who have ever considered having their class peer-reviewed, or have ever peer-reviewed a colleague's class.
2. College/university administrators who have ever considered using peer-review of teaching as a factor in annual performance evaluation of faculty, or to enhance faculty improvement.
3. Any teacher who would like to observe a colleague having fun at work in their shop (classroom).

Content

Peer review of teaching can be used administratively to evaluate faculty performance in promotion, tenure and salary considerations, as peer review of research is commonly used as an evaluation factor. However, it is most effectively used by faculty voluntarily for self-improvement, as it enhances self-awareness of behavioral criteria impacting teaching-learning effectiveness. It is designed to assist the good, interested professional teacher in becoming even more effective in maximizing the teaching-learning process; through more effective communication in the classroom.

This workshop will provide the participant an actual in-class, hands-on opportunity to peer review a teacher in the actual process of facilitating the learning of real students in a live class while it is in session. The behavioral criteria on the next page will be used to summarize in writing observations during class of: Entry, Content, Presentation, Student Participation, and Closure. A similar summary form will provide room for written comment and will be presented to instructor of course observed.

Behavioral Criteria Summary

Department: _____
Class: _____
Date: _____
Time: _____
Instructor: _____
Peer Reviewer: _____

Key:

+	=	very good, effective, outstanding
√	=	adequate, acceptable, enough
*	=	suggested change
NA	=	not applicable

	Entry	Content	Presentation	Student Participation	Closure
Introduction of topic: interesting	_____				
effective	_____				
Class session: purpose	_____				
structure	_____				
Presented: concepts		_____			
principles		_____			
generalizations		_____			
specifics		_____			
Information: pertinent		_____			
stimulating		_____			
exciting		_____			
interesting		_____			
Speech: audible			_____		
clear			_____		
tone variation			_____		
rate			_____		
filler words			_____		
phrases			_____		
pauses			_____		
Movement & gestures: pacing			_____		
arms			_____		
hands			_____		
other			_____		
Awareness of audience: eye contact			_____		
reaction to students			_____		
Organization: information			_____		
materials			_____		
Notes: content			_____		
use			_____		
Enthusiasm: appropriate			_____		
genuine			_____		
effective			_____		
Visual aids: appropriate			_____		
effective use			_____		
Encourage students: questions				_____	
comments				_____	
Instructor-student: interaction				_____	
Summary-preview: appropriate					_____

Injecting Jest into Your Course Test

Are your tests hilarious? Yeah, I know what you mean. Have you ever asked yourself the following questions?

- Should I use humor in my tests?
- Do humorous items reduce students' test anxiety?
- Do humorous items improve students' test performance?
- How in the world do you use humor appropriately in tests without decreasing the validity and reliability of the scores?
- Will students even notice the humor?
- If they do notice it, will they find it distracting?
- Are some tests funnier than others?

If these throbbing questions have you hemorrhaging with interest in this topic or you just want to veg for 50 minutes, then you don't want to miss this session. It will review the state-of-the-art of research on the psychophysiological benefits of humor, generalized versus anticipatory test anxiety, and humor in test items. The bulk of the session will be devoted to the latest techniques for infusing humor into course tests, including: (1) an incongruous descriptor under the title, (2) jocular inserts in the directions, (3) a humorous note on the last page, and (4) humor in the items. The latter topic will cover three *content-irrelevant* methods, such as adding humorous distracters, items, or the combination of both, and five *content-relevant* methods, such as inserting humor in the stem or choices of multiple-choice items, the stems of matching items, context-dependent material, or constructed-response stimuli. This session "boldly goes where no professor has wanted to go before . . . maybe!"

Connected Teaching: Exploring Learning in the College Classroom

Dr. Angela Humphrey Brown and Dr. Jane McFerrin
Piedmont College

College teachers need to have higher student achievement at the forefront of their goals. This goal can be realized if teachers embrace connected teaching practices that are based on democratic principles in their classrooms. Dewey was one of the major proponents of connected teaching and democracy in the classroom (1938). Building on Dewey's work, Glickman (1998) stated that, "Democratic learning in schools is a set of purposeful activities, always building toward increasing student activity, choice, participation, connection, and contribution. It always aims for students, individually and collectively, to take greater responsibility for their own learning"(p .31). Although, Dewey's work took place in the early 1930's, his ideas regarding connected teaching have not yet permeated today's college classrooms.

Those engaged in connected teaching through constructivist practices recognize that students' prior knowledge and dispositions affect their learning (Henderson, 1996). Dewey (1938) also spoke clearly and powerfully about the need to integrate learning and connect skills, habits, and concepts to learners' present and future lives.

> Integrating, exploring, and expanding mandates, skills, knowledge, and concepts beyond the context in which they are learned depends heavily on the learner's ability to imagine what they might be or mean, how they might be connected, and the many and varied ways they might be blended to meet emerging challenges (Stevens, 1999, p. 5).

It is important for educators to understand research relating to connected teaching and how to integrate research findings into their instructional practices. This is especially important because connected teaching is more than imparting facts, but requires the use of techniques that guide student thinking and promote active learning and democracy in the classroom (Huba & Freed, 2000). Research repeatedly illustrates that becoming actively involved with the content is the best way to learn that content and therefore, college faculty need to be facilitating connected learning experiences in their classes (Bonwell, 1997; Brown, 2000; Brown & Uhde, 2001; Elbert-May & Brewer, 1997; Rubin & Herbert, 1998). "Learning activities that are designed to foster creativity cast students in the roles of problem solvers and communicators rather than absorbers of knowledge. Teachers, in turn, are transformed from founts of wisdom to problem setter, problem seekers, coaches, audience, and sometimes publicity agents" (Starko, 1995).

In this session participants will explore why connected teaching strategies should be used to prepare college students to see the world in new ways and how college faculty can incorporate connected learning experiences into their classroom instructional practices. In designing instruction that optimizes student learning, it is important that instructional strategies and techniques that are relevant and worthwhile to the student be employed (Brown, 2000; Brown & Uhde, 2001). "[E]very experience affects for better or worse the attitudes which help decide the quality of further experiences" (Dewey, 1938). College professors should focus on the process of learning and relational understanding of the curriculum (Brown & Uhde, 2001). The atmosphere of the classroom should be such that students can be actively involved in rich discourse surrounding the course content (Freiberg & Driscoll, 1996; McKeachie, 1994). Connected teaching is essential for helping students understand complex ideas and concepts (Brown & Uhde, 2001). Brown and Uhde reported that use of connected teaching in their college classes not only improved their students' dispositions regarding the course content but also caused increases in students' achievement (2001). "Thus, the task of the teacher, after coming to understand the nature of the students' present notions, is to structure a classroom in which students experience disequilibrium and, subsequently, self-regulation" (Brooks, 1990, p. 70). College professors need to provide multiple opportunities for students to grapple with the content and develop higher order thinking skills in relation to that content (Brown, 2000; Brown & Atkins, 1996; Freiberg & Driscoll, 1996). "What is needed is for teachers to make a conscious choice to carefully consider the ways they think learning best occurs and the relationship they want with their students" (Paris, 2003, p. 43).

This session is directed toward college and university faculty who are interested in exploring the boulevards of connected teaching as a route for enhancing their teaching effectiveness and increasing student achievement. The facilitators' aim is to foster session participants' desire to use connected teaching practices for cultivating student intellectual growth. The following questions will be addressed: (1) What is connected teaching? (2) Why engage in

connected teaching in the college classroom? (3) How can college faculty promote and facilitate connected teaching in the classroom? (4) What are the barriers to promoting and facilitating connected teaching? (5) How do we connect good teaching to good learning? Participants will be given the opportunity to ask questions, make observations, participate in constructivist practices, analyze shared examples of best practice, and offer additional examples of classroom activities that exemplify connected teaching.

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Abstract for Teacher As Actor Workshop
50 minute workshop

Presented by Morris Burns
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Colorado State University
&
Porter Woods
Professor Emeritus of Theatre
Dept. of Music, Theatre & Dance
Colorado State University

This is a 50 minute overview of what is usually a day long workshop. The workshop is based on the idea that actors use techniques in creating characters which teachers can utilize in their teaching. Among the topics covered are:

(1) The importance of the imagination in teaching.
(2) Methods for expressing feelings.
(3) The use of honesty (the direct projection of an idea).
(4) The use of subtext (the use of indirection in communication).
(5) The use of space.
(6) The use of props.
(7) The use of costumes.
(8) The use of movement.
(9) Techniques for memorizing lines or "lectures".
(10) "Playing" an audience - working off of an audience.
(11) Dealing with performance anxiety.
(12) Learning physical and vocal exercises that can be used before entering the classroom.

This workshop has been presented at a number of Universities including: Oregon State University, Western Oregon State College, Vanderbilt University, University of Florida, Pensicola Junior College, University of Colorado - Colorado Springs campus, Colorado Mountain College and Colorado State University. An overview of it has also been presented for a National Education Association National conference.

Repurposing the Game:
Examining a Potential Literacy Technology

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Does the term "technology literacy" necessarily have to deal exclusively with computers? That is, are desktop and laptop computers, and to an extent personal digital assistants (PDAs), the only devices we should consider as viable classroom technologies? Are there emerging technologies that do not fall into these three categories, that might have an equally relevant role in teaching and learning with technology? I am exploring current efforts by individuals, programmers and small startup companies to add additional functionality into console gaming platforms, for the purpose of evolving these devices into information appliances. Many of these devices have such potential in the classroom, and may prove to be efficient, cost-effective pedagogical tools.

Such efforts include adding eBook reading, PDA, chat, video-out, and wireless networking features to handheld console gaming platforms, such as the GameBoy / GameBoy Advance platform, and similar efforts on various stationary console gaming platforms. My efforts focus primarily handheld platforms. The reasons for attempting these projects range from purely educational to purely commercial. However, the end result may well be the same: a wealth of new possibilities for inexpensive devices with broadly-installed user bases, some of which may be well-suited for technology literacy.

However, there are several roadblocks inhibiting development of these efforts. The existing rhetoric of technological control surrounding current and emerging technologies appears to be stifling many of these efforts before they can even be brought to the public. This rhetoric of control is largely typified by digital rights management (DRM) schemes antithetical to education and the Digital Millennium Copyright Act (DMCA), which is currently being used as a legal club against these efforts.

My primary goal is to examine whether an inexpensive electronic device that already boasts a broadly-installed user base could potentially become an efficient, cost-effective tool for computer mediated learning. This scenario would be significantly less expensive than going with either an equivalent number of stationary desktop computers or laptops, either as new or replacement systems. State-supported and state-assisted institutions are collectively facing their worst financial crisis in years. Out of necessity, every dollar allocated to buy new computers or replace old ones must provide the best return of investment possible.

How could such a device be used in typical computer-mediated learning environments? Imagine, for example, a "regular" classroom (not a computer lab) where the instructor uses a Bluetooth-enabled laptop, tethered to a regular in-room ethernet connection, and the students are using or sharing GameBoy Advance systems, with Pat Crowe's excellent BookReader program installed on an SD card, which is in turn inserted into a Bluetooth / PDA / SD cartridge. In this regular classroom, the instructor could wirelessly send course materials to the class, wirelessly receive text-based or multimedia assignments from the students (assuming some also have the SD-based digital camera or digital audio player / recorder add-on devices). There are numerous other ways such a device could used in the classroom, as well.

To be fair, I understand that my central argument of using handheld gaming consoles in pedagogical or computer-mediated learning settings may initially seem a bit absurd. However, in *Passions Pedagogies and 21st Century Technologies*, Gail Hawisher and Cynthia Selfe stress that "it is through our own work with new technologies, for example, that we continue to rediscover an essential truth about our profession." Certainly, Hawisher and Selfe did not have handheld gaming consoles in mind when they wrote this. The "essential truth" they refer to deals with the social and political exchanges that form the foundation of our discipline. However, in a broader sense, I view their notion as espousing an open-mindedness about the possibilities within our discipline--socially, politically, and technologically. I

believe their view reflects back on Selfe's essential truth of practitioners within our discipline needing to pay attention. That is, I believe it reflects on the need to not rule-out emerging social, political, and technological opportunities and considerations without first critically exploring them and their potential impact on literacy.

If repurposing handheld gaming consoles as low-cost information appliances turns out to be a dead-end, so be it. We can then brand such efforts as being absurd. Yet, as these efforts are new, I think it is perfectly natural to stop and examine them first.

Lesson Study: A "Teacher-as-Learner" Approach to Instructional Improvement

Kelly Chappell and Holger Kley, Assistant Professors of Mathematics

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Overview : Lesson study (Jugyou Kenkyuu) is a driving force behind Japan's educational success. Lesson study is a collaborative, classroom-based, practical, sustainable, and cost-effective professional development activity that focuses on improving teaching. The steps of the lesson study cycle are

- selecting an overarching goal that the team of teachers would like to achieve with their students
- collaboratively designing study lessons to foster this goal
- implementing the study lessons
- debriefing the study lessons and reflecting on what has been learned from the observations
- improving the study lessons and instruction based on evidence from classroom observations.

Presentation Goals: Via audience participation and dialogue, this presentation will illustrate the lesson study process and address key issues of lesson study at the collegiate level.

Introduction: The presentation will commence with a brief description of the main activities and key features of lesson study and an overview of why our university considers lesson study an effective professional development method.

Activity: The majority of the session will be devoted to a role-play activity in which participants will experience first-hand the lesson study cycle. Audience participation is expected.

Conclusion: We will discuss hurdles encountered, lessons learned, and the impact of lesson study on the professional development of instructors (faculty and graduate students). We will present research results that reflect the impact of the lesson study process on instructors' classroom performance and on student-teacher interactions within the classroom. Audience questions and dialogue will be valued and expected.

Target Audience: Educators from all disciplines who share a commitment to improving the quality of their teaching and their students' learning by using a collaborative and "teacher-as-learner" approach to instructional improvement.

References:

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Burnout: Yours, Mine, and Ours!

Diane D. Cheatwood
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Denver, Colorado

The Session

Though it's not a precisely defined condition, employee burnout has recognizable symptoms and can be one result of prolonged stress. Why should you care? What could you do, either as faculty or administrator? Join us for a lighthearted, yet frank discussion that has no magic answers but does present important information and some approaches to reduce burnout. You'll have an opportunity to offer additional ideas and map plans to address this issue for yourself, your faculty and staff, and/or your organization.

Objectives

1) Explain and discuss burnout symptoms
2) Create ideas to prevent or alleviate burnout
3) Brainstorm ways the steps/tools/ideas/handouts could be adapted for your organization

Content

Why?

As a faculty member or administrator, why would you care about *burnout*? We'll discuss how the people most likely to develop burnout are usually the best employees – the most self-motivated, the most time-committed, the most dedicated. Many of us recognize burnout in others before we recognize it in ourselves; let's explore the concept to coach each other in ways to deal with it.

What?

With just a quick definition, participants will build upon the concept of *burnout*. Teams will provide additional information by applying an adapted concept formation activity: giving examples of what it looks like at their organization, identifying specific behaviors, and creating examples of opposites.

How?

Once we have a pretty good idea of what burnout is, we'll spend energy figuring out how to handle it. Experts give us general areas to consider, but burnout is a highly individual state that requires individualized approaches. We'll use a Gallery Walk technique to produce ideas for ourselves as well as faculty and staff co-workers and even the whole organization.

This isn't rocket science; it's highly subjective. But techniques that take care of students, staff and faculty help the whole institution thrive. And when we take care of our departments and divisions, it's easier to take care of ourselves.

What if?

We won't have enough time to explore every possible area, but we'll take a few minutes to plan what we can do as individuals. By sharing game plans, we can have fun with some ideas and note the good advice offered by others. And we can set priorities for ourselves, our organizations, and our departments.

Intended Audience

This practical session will appeal to administrators, faculty, and faculty and staff developers (both new and experienced) across all disciplines. Most likely, it will appeal to anyone who has ever experienced stress at work.

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Spera, Stefanie and Lanto, Sandra (1997). Beat Stress with Strength: A Survival Guide for Work and Life. Indianapolis: Park Avenue Productions.

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Infusing fundamental elements of American Indian studies into the Education Department Curriculum for Wisconsin Teachers: An Act 31 Plan for the University of Wisconsin at Green Bay.

Rosemary Ackley Christensen with Lisa Poupart,
Faculty, American Indian Studies, Humanistic Studies Department, UWGB.

This is a description of an interdisciplinary plan for infusing core knowledge and information about American Indian culture and history into the curriculum in select Education Department courses at UW Green Bay. This infusion is intended to prepare future educators to meet the requirements of Act 31, chapter 115, 118 and 121 of Wisconsin Statutes, which require American Indian history and culture be taught in all Wisconsin elementary and high schools. It is expected that every student receiving an undergraduate degree in Education at UW Green Bay will engage in the "Pillars of Tribal Learning" identified and explained in the next section. The design includes two levels of learning for students. The first is intended for all students, and the second is meant for those students who chose to proceed further in their learning thereby becoming 'experts' prepared to train other teachers. In addition, the plan expects that the Ed faculty learn about American Indian knowledge and learning through interacting with AI faculty and utilizing oral and written resources. In this way the Ed faculty will extend and enlarge their presently held pedagogical base to include American Indian scholarship.

Project/plan description

In level one, education students take AIS infused courses over a two-year period. These courses are currently offered in the Education department by the Ed faculty currently involved in the plan. Within these courses, students will learn about the holistic worldview of traditional Indian people through a contextual phase that includes learning specific techniques and methodology, thereby, extending their pedagogical knowledge base. Thus, each teacher engaged in and passing through level one will successfully earn a certificate confirming competence in teaching American Indian context/content, thereby, meeting the intent of Act 31 for the State of Wisconsin.

In Level Two, Education students may choose to focus on American Indian studies content, thereby, earning a certificate confirming competence in training other teachers in Act 31 content. This content level will approximate an extra semester of work which includes learning units focusing on five cultural competencies that can be pursued individually or with student learning groups.

Context: Wholistic Worldview

In the contextual phase, students will learn about the holistic worldview that is passed through the oral traditions and Elder epistemology of traditional American Indian Nations. Teachers will have an opportunity to practice these methods during their practicum experiences. This will allow them to amend, define and choose methods and techniques and also learn useful ways of approaching grading and evaluation, including self-evaluation of their own teaching habits. Specific techniques and methods reflecting the holistic worldview of tribal people will be taught through participation learning in the Education Department's teaching methods courses. Further, through the teaching the Tribal 3 R's of respect, reciprocity and relationship by using specific methods through the frame of the core Tribal value, personal sovereignty, prospective teachers will learn the metaphysical basis of the Tribal world.

Content

Pillar of Tribal Learning: History. The AIS content portions could begin with American Indian historical information inserted into beginning courses with interspersed units highlighting American Indian historical eras including traditional, contact and contemporary eras.
Pillar of Tribal Learning: Laws & policies. This level underscores the impact of European and American laws upon American Indian people with a primary focus on those laws and policies which provide the basis for American Indian rights today.
Pillar of Tribal learning: Sovereignty. A basic understanding of American Indian tribal sovereignty is vital. There are important written works by American Indian scholars which comprise a solid knowledge base.

Pillar of Tribal learning: Indigenous intellectualism. The content area of indigenous intellectualism can be divided into two parts that sculpt and shape the Tribal canon. The first portion identifies individual Native intellectuals, philosophers and thinkers. It provides students with an understanding that American Indian cultures, just like all other cultures, learned to live from those who fashioned their world through voicing thought, prophecy, and vision. Native intellectuals that shaped the native world are featured in this Pillar. The second portion of indigenous Intellectualism concerns the

intellectual practice within Native traditions. These pieces of oral traditional literature illustrate worldview and tribal epistemology. Implementation: Working together.

Faculty members from the Education Department (EDUC) will work closely with American Indian Studies (AIS) faculty to infuse AIS core knowledge into the course curriculum. The AIS faculty (Christensen, Poupart and Abbott) will interactively 'teach' the content to the EDUC faculty (Kaufman and Thron) through collegial information exchange sessions. Christensen and Poupart organized an oral and written 10-page listing of the materials used in this interchange. As colleagues, we will work together to share and learn tribal knowledge, experience, worldview, transmittal channels and cultural differences and where learning is facilitated through oral teachings and interpersonal relationships.

While preparing the infusion, the two faculty groups (EDUC and AIS) will assist each other in preparing the curriculum. Both will sort though various texts, making consensual decisions about what is suitable for students, and decide which WI standards should be incorporated into the curriculum. The units for cultural competencies and the manual for cultural contextual methods are researched, written and provided by AIS faculty. Together, AIS and EDUC will also discuss the way to certify students, develop a way to assist teachers who may be apprehensive or afraid of teaching about Indians, and decide when to periodically assess and reconsider this curriculum. It is possible to address any apprehension and anxiety that may manifest itself in students by providing a statement on student certificates from AIS faculty attesting to student knowledge level. AIS and ED faculty might also, if appropriate, seek Tribal resolution(s) that might be included in the certificates in support of the knowledge base. In addition, during the process described in this document, we will approach Wisconsin's DPI (Department of Public Instruction) and discuss the possibilities regarding a similar DPI certifying statement.

Conclusion:

The plan addresses ways to ensure the teacher 'pipeline' is adequate relative to Act 31, and systemic throughout WI in teaching institutions. The UWGB plan is an opportune time to 'work out the problems' within that process, so as to approach other teaching institutions regarding their pipeline section adequacy (regarding Act 31). Then, once the teaching institutions are addressed satisfactorily, it is possible to focus on (the already graduated) teachers who need assistance toward an adequate level of teaching Act 31. The plan is an attempt to address uneconomic, ad hoc and partial instruction for Act 31. It takes advantage of the natural relationship held between EDUC faculty and their students to structurally and systemically graft a course of study that in its hybrid form meets the needs not only of the student teachers, but their future Indian and non-Indian students; helping them become good citizens by understanding and appreciating each other.

A course of study for incipient teachers, those who will teach the children for many years is an important endeavor. They must be carefully and charily taught. Together, the committed people of American Indian Studies and the Department of Education at UW Green Bay will put together a two- year course of study. It is for the children, the next generation.

Teahing Methods Versus Satisfaction with an MBA Program:
What Works and What Doesn't

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The objective of this study was to determine which teaching methods appear to be 'drivers' of satisfaction with an MBA program by the students in such a program, i.e., which teaching methods are so positively perceived that they influence one's satisfaction with the overall MBA program. One may initially feel the primary audience for this presentation would be those involved in an MBA program. However, it is suggested that an even more important reason for one to attend this presentation would be to examine the methodology the researchers used. The methodology presented allows the faculty to determine those teaching methodologies deemed most effective by the students. The use of this information could therefore improve student satisfaction with a program. This methodology may be applied to virtually any program and any list of pedagogical techniques, resulting in new findings, presentations and publications.

A fifteen page questionnaire was sent to 312 alumni who had graduated from the MBA program of a private New England university over a ten year period. The survey produced a 26% response rate. The subjects rated the effectiveness of the following teaching methods: Case studies, Lectures, Computer simulation, In-class discussions, Group projects, In-class exercises, Individual projects, In-class presentations and Exams.

The subjects then scored the following set of eight bi-polar adjectives as to their perception of how well it described the entire MBA program using a six point Likert scale: A good experience - A bad experience, Good use of my time - Bad use of my time, Valueless – Valuable, Satisfactory – Unsatisfactory, Not enjoyable – Enjoyable, Useless – Useful, Desirable – Undesirable and Ineffective – Effective. The responses were then subjected to a factor analysis to determine which items were significantly inter-correlated and constituted a factor. The factor score for an alum therefore represents his/her index of satisfaction with the entire MBA program. The resulting index of satisfaction factor score for each subject and that person's evaluation score for each teaching method were then used to determine the extent to which each teaching methodology that was rated highly was correlated to the graduates' satisfaction with the MBA program in general. The resulting correlations will be presented. The next task performed was a factor analysis of the teaching methodologies. The purpose of this step was to satisfy the curiosity of the researchers in an attempt to determine which, if any, of the teaching methodologies seem to be inter-correlated in terms of their evaluation scores. A principal components factor analysis revealed that the teaching methodologies separated out into three distinct factor clusters. The apparent rationale for the teaching methodologies that compose each factor will be presented.

Good Faith Effort Assignments and Active Learning Strategies: A Combination That Improves Student Learning and the Quality of Life for Faculty Members

Jeffrey L. Clark and James Armstrong
Virginia Union University

Most faculty members have had the experience of giving students assignments to read material in preparation for a class and then finding that the majority of the students have not done the reading. If this happens repeatedly, many faculty members give up on the expectation that students will complete such assignments, and they begin lecturing on the material that should have been covered before class. As a result, students spend their time in class taking notes. In addition, because faculty members are spending most of their class time lecturing, the bulk of the student learning takes place as the student reviews for tests or works on major writing assignments such as term papers. Consequently, assessment of student learning is typically determined through performance on these tests and writing assignments. This, in turn, means that these faculty members often spend a great deal of time alone, at home or in their offices, scoring tests and reading student papers. Therefore, the primary feedback about how well a student is learning the material comes in the form of comments on tests and returned papers – comments that students typically do not read carefully.

Another way to conceptualize these important aspects of the teaching and learning process is in terms of where and when the first exposure to new material occurs, where and when the students process the material to be learned, and where and when faculty members respond to their students' work. In the traditional method, first exposure occurs in the classroom (the faculty member lecturing), students process the material to be learned when alone (studying for examinations or working on major writing assignments), and faculty responses to student work occurs when the faculty member is alone (writing comments on tests and written assignments).

The problem with the traditional approach is that it is inconsistent with principles of good teaching and learning. Learning is best when students come to class prepared. Learning is best when students are actively engaged in the learning process with others. Learning is best when the student can get immediate feedback about performance from the instructor. A better approach is needed.

Two techniques, in combination, lead to this better approach. They involve the use of Good Faith Effort assignments with active learning strategies. In a Good Faith Effort assignment, students are given an assignment that must be completed prior to an upcoming class period. The student must bring <u>two</u> copies of the completed assignment to class. One is collected at the beginning of the class period. This copy is quickly reviewed at a later time to evaluate whether the student has made a good faith effort to complete the assignment. If the student has made a good faith effort, he or she is given points that contribute to the final grade.

The second copy of the completed Good Faith Effort assignment is a springboard for an in-class active learning exercise. There is a wide range of active learning strategies that can be used in the classroom. If the Good Faith Effort assignment involved finding answers to questions based on reading material in the textbook, students might be arranged in small groups and asked to come up with group answers to the questions that are then written on newsprint and posted on the wall. Then the group responses are discussed with the whole class. If the Good Faith Effort assignment involved reading a short story and writing a synopsis, the students might be asked to draw a picture of the major theme of the story and share his or her picture with the class with an explanation of what it represents. If the Good Faith Assignment involved creating a table of key information based on reading textbook material, the students might be given index cards on which they write either one key point from the material or one question they have about the material. The cards can be collected, shuffled, and redistributed to the class. Then students are asked at random to read the card and either elaborate on the key point or attempt to answer the question. There are numerous types of active learning strategies that can be used to build on completed Good Faith Effort assignments.

The combination of Good Faith Effort assignments and active learning strategies takes advantage of the techniques that define good teaching and effective learning. First exposure to material is done prior to class as the students complete the Good Faith Effort assignments. In addition, students are engaged in active learning both while completing the Good Faith Effort assignments and participating in the active learning exercises in class. Furthermore, the students are processing the course material and getting immediate feedback in class when it is most likely to be helpful in improving

student learning. In addition, the faculty member spends less time writing comments on student work while alone in his or her office, but is able to give constructive feedback at the time of learning.

This approach works. Students will complete the Good Faith Effort assignments if they receive enough points so that it actually matters in determining the final grade. In our classes, points from Good Faith Effort assignments account for approximately 20% of the final grade. In addition, students report enjoying class more, though some complain about having to "think" during class. Performance on tests and other evaluative activities are consistently higher with this approach.

There are, however, a few caveats that should be noted. This approach does involve creating Good Faith Effort assignments and active learning exercises. This does take time. However, once a combination has been shown to be effective, it can be used in subsequent semesters with little additional preparation. Furthermore, this approach to teaching and learning is not typical in college. Therefore, there may be some initial resistance from students who are used to the more traditional approach. This is overcome by being consistent and monitoring student activities in class to be certain that everyone participates. Finally, active learning techniques use up a great deal of class time. As a result, faculty members are not able to cover as much material as in a traditional lecture course. However, we feel that "less is more." Covering less material is clearly offset by the increased learning that occurs. We argue that having students learn fundamental concepts well is much better than having students learn very little about a wider range of topics in the course.

In spite of these potential "drawbacks," the use of Good Faith Effort assignments and in-class active learning exercises, is far superior because, in combination, they increase students' active involvement in learning, they provide the opportunity for immediate feedback and clarification from the teacher, they result in faculty members spending less time writing lengthy comments on students' work, they make class time more exciting and productive, both for the teacher and the student, and, most importantly, they lead to better student learning.

Rhetoric, Religion, and Research: Making Interdisciplinary Practice Explicit to Students

By Daniel Collins and Stephen Kaplan

Must we see required freshmen core courses as disciplinary fiefdoms? Are students doomed to a series of required courses that have no apparent connection to one another *and* that make no attempt to connect to one another, professorial exhortations for intellectual connections notwithstanding? Is our "preaching" out of synch with our practice?

Our presentation will focus on these questions and one possible solution in relation to the study of rhetoric and religion. Specifically, we have tried to tackle these issues by pairing two freshmen courses: *College Writing* and *The Nature and Experience of Religion*. Through this collaboration, we hoped to accomplish two specific goals: (1) illuminate methodological similarities and idiosyncrasies between rhetoric and religious studies, and (2) develop the notion in students that the skills and content of one discipline should not be isolated from the skills and content of another discipline. Our classrooms were thematically linked through a common set of texts and a series of writing assignments related to these texts. We chose these texts not only for the interdisciplinary conversations we wanted to model, but also for the methodological particularities of each discipline we hoped to illuminate.

For our presentation, we will provide an initial overview of our collaboration, the goals of this experiment, and the issues we hoped to tackle. We will identify the outcomes of paired-courses and the benefits gained by faculty and students using student essays as evidence. Specifically, we will focus on two dimensions of our collaboration: that period of the course working through Harold Kushner's text *When Bad Things Happen to Good People* and *The Way of Chuang Tzu* edited by Thomas Merton. We will discuss assignments related to these materials and their results. These results will be extrapolated to the performance of students as a whole across the semester.

We believe that pairing required courses (as in the case of rhetoric and religious studies) is one way to address disciplinary disjunctions plaguing the undergraduate landscape. In particular, the double exposure to the readings enabled students to develop insights across disciplines, and it fostered more sophisticated, nuanced student writing. Students and faculty developed an enriched feeling of community as well.

Finally, we hope to solicit suggestions for implementing such offerings in other areas of the curriculum, as institutional hurdles are always present. Our intended audience is comprised of teachers from any discipline interested in either collaborating in a paired-course set-up or utilizing interdisciplinary methodologies in their courses. Teachers with a keen appreciation for new ways of implementing different kinds of writing assignments in their courses will also be targeted.

Cubing: An Interactive Process to Teach Teachers and Students How to Apply The Rigor/Relevance Curriculum Planning Framework Model By Using An Age-Old Cubing Technique

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Anthony Podczasy (Co-Presenter)
Director of Curriculum
Hanover Area High School

Objective of the Presentation/Seminar

A. To teach teachers how to design instruction that allows mixed-ability learners (gifted, average, and learning disabled) how to view concepts and principles from 12 different perspectives.
B. To teach students, in a hands-on activity how to view concepts and principles from 12 different perspectives.

Format The presenter will review all aspects of this presentation/seminar with the participants and will lead a discussion and sundry activities with the participants during the 60 minute session.

Brief Profile of the Intended Audience Teacher and administrator preparation professors, public and private school teachers, curriculum supervisors and building level administrators.

Benjamin Bloom's Taxonomy of learner objectives has been widely used over the last three decades in the design of classroom instruction. However, recent changes and demands in the global market of education have necessitated an upgrading of this approach. Simply put, designing classroom instruction using a knowledge-based tool is not sufficient to meet the instructional design requirements that include the highest levels of real-world application of the highest levels of knowing..

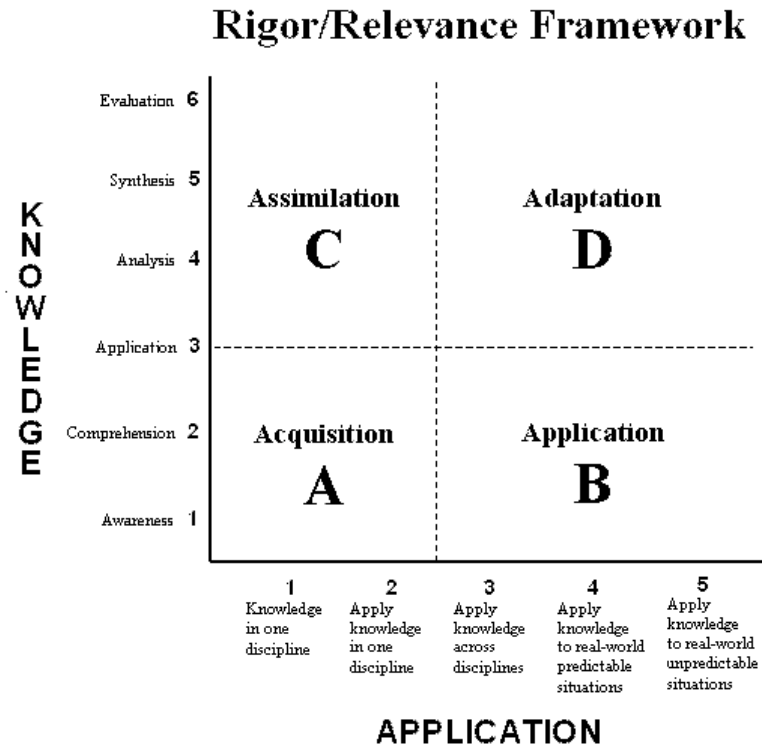
The Rigor/Relevance Framework is a tool developed by staff of the International Center for Leadership in Education to examine (and design) curriculum, instruction, and assessment. The framework takes the job of good instructional design to the next logical level in preparing learners to be successful in a more competitive and demanding global economy.

The Rigor/Relevance Framework is based on two dimensions of higher standards and student achievement.

First, there is the **Knowledge Taxonomy**, a continuum based on the six levels of Bloom's Taxonomy, which describes the increasingly complex ways in which we think. The low end involves acquiring knowledge and being able to recall or locate that knowledge. The high end labels the more complex ways in which individuals use knowledge, such as taking several pieces of knowledge and combining them in both logical and creative ways.

The second continuum, known as the **Application Model**, is one of action. Its five levels describe putting knowledge to use. While the low end is knowledge acquired for its own sake, the high end signifies use of that knowledge to solve complex real-world problems and to create unique projects, designs, and other works for use in real-world situations (see the diagram below).

This presentation should result in at least two major outcomes Participants will have acquired an updated knowledge of how to teach fellow teachers how to design instruction which allows mixed-ability learners (gifted, average, and learning disabled) to learn how to view concepts and principles from 12 different perspectives, and participants will be able to conduct cubing activities that enable learners how to independently view concepts and principles form 12 different perspectives.



Cubing is a widely used technique for considering a subject from 6 points of view. The emphasis is on *6 points of view. However, given the demands of augmented world class standards in our schools and universities it is time to upgrade our approaches to designing meaningful instruction and to teaching teachers and students how to use existing technology to move to the next level of knowing and applying knowledge in schools and in the workplace.*
Often students have difficulty understanding a subject because they are locked into a single way of looking at the topic, such as simply RECALLING it -- and that's where **cubing** works very well. **Cubing** starts out with a single point of view, then moves you onwards and upwards to the next point of view (or next highest level of knowing). When student finish cubing using the above framework they will understand a topic by knowing it at all six levels of knowledge. For instance when they complete the cubing activity they will be able to describe a topic, to compare a topic, to associate a topic, to analyze a topic, to apply a topic, and to debate a topic. This technique of cubing is quite structured and fun to do. In addition to using the knowledge taxonomy this activity also includes the addition of the application model which allows students to use and view concepts and principles from six additional perspectives (applying knowledge within a discipline, applying knowledge across disciplines, applying knowledge to real-world predictable situations, applying knowledge to real-world unpredictable situations, and invention new applications of the knowledge under investigation.

For the cubing technique, you need to use *all six sides of a cube for the knowledge activities and all six sides of another cube for application activities.* This is *not* an exercise in describing, analyzing, or arguing. **It is a technique to help you learn to look at a subject from a variety of perspectives.** Consequently, doing just one of the sides won't work. Doing just one side is like a mechanical assignment -- "describe the picture." You may decide after doing all six sides that you *do* want to describe it; but by then your decision will be meaningful and intelligent, based on your having something to say in the form of a description. So remember: **cubing** takes all six sides.

Following a contextual review the above information an interactive activity will be conducted where all participants will use presenter provided CUBES to design instruction at the knowledge and at the application levels. Subsequent to this activity a review of cubing activity outcomes will take place.

If You Wanna Be a Leader, You Hafta Lead

A Workshop on Leadership Styles

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Intended Audience

This workshop is intended and appropriate for any teacher or practitioner who wishes to explore leadership styles and/or team building/selection in the classroom.

Required Time

90 Minutes – Can be presented in 60 minutes

Objectives

1) To promote discussion of leadership styles
2) Explore differences in individual leadership styles
3) To illustrate an exercise that you can use in the classroom to enhance the teaching of leadership and leadership styles
4) Develop "best practices" for teaching leadership

Materials

Flipcharts, Overhead projector

Content

There is a saying in organizations that goes "You can't get enough leadership." A discussion of this question leads to questions of leadership styles and the implications of different styles. One thing is true – we are each unique. We each possess our own individual style. Given that there are different leadership styles, which style is best? How do the different styles work together in an organization? What predictability is achievable? What are the advantages for understanding each style? This workshop will present a leadership assessment tool that will allow you to address these issues and more in your classrooms and/or training sessions. It is called the CAPS Tool. The presenters utilize this tool in both the classroom and in organizational development efforts.

The exercise provides a way of holding the "why" behind what people do. To a productive manager or supervisor, however, the why of people's action is not as important as the "what." It is far easier to work with people at the level of action than it is at the level of interpersonal motivations. In other words, what we are concerned about as managers is changing what people do, how they behave on the job -- not why they do it. To do this we must interact with people more effectively, and to do that, we must have greater insight into where they are "coming from."

The C.A.P.S. (or CAPS) model is designed to help give some insight into this element of human behavior. There have been many models that seek to simplify and categorize human behavior in a meaningful way. Entire "catalogs" have been created with this goal in mind. An entirely new jargon has been created in an effort to describe the various "styles" that people exhibit. Unfortunately, many of these models have served to merely obfuscate that which they sought to clarify.

In order for a model to be useful, it must be specific enough to be meaningful yet broad enough to be widely applicable. It should also address the issue of behavior styles in a language that is easily understood by everyone. The CAPS model meets these requirements.

The CAPS Model divides observable behavior into four basic and easily recognizable categories. These categories, or a combination of any two, include nearly everyone and can be readily observed in normal, day-to-day social interplay. The quadrants describe typical "modes of operation" that we all will exhibit on the job and at home.

While quite obviously people can exhibit an infinite range of behaviors, much of the time they will fall into one of the CAPS modes. This will be referred to as their high or primary behavior. Another way of looking at is that while people may, in any given instance, act in any manner, they will; however, still find it easier to act in certain predictable ways. These might be referred to as "comfort zones." That is, while they are capable of doing things differently than they normally do, it is much easier and "safer" for them to do things in a cheering way. This is particularly true in those situations that people may feel are threatening, unusual, unique, or stressful. And, of course, these are precisely the situations that a manager must handle carefully and wisely, and the ones that usually aren't handled that way. Thus, we see even greater importance being attached to this model.

Adapted from: Merrill, David W., Ph.D., and Reid, Roger H., M.A. Personal Styles and Effective Performance (1981) Chilton Book Co. Bradner, PA.

Teaching Tips for Successful Learning:
It's the Small Stuff That Makes a Difference and It's All Small Stuff

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Audience:

This session is for new or seasoned teaching professionals looking for new techniques to try in the classroom enhance participant learning.

Abstract:

Excellence in teaching and learning has been defined in many books and journals. It is a topic that is discussed almost daily in the corridors of colleges and universities. It embodies emotions of both instructor and student, and yet it seems to be an illusive concept. What is it that actually makes the learning good? What are the learning styles of the potential learners? How does delivery, class size, and, attitude affect the learning outcome. In general, how do teaching professionals set an environment that is conducive to learning?

As instructors we have surveyed classes, used intervention processes, and held open communication sessions to try and understand the dynamics of the student-teacher relationship as it relates to a good learning experiences.

The writers have been privileged to win several teaching awards and want to share some of our experiences as well as discuss experiences and observations other educators can bring to the table. Our goal is to help students spark intellectual curiosity, to support students in the process of learning, to encourage students to get involved in their own education, and to build a sense of community in the classroom.

Objectives:

In this session participants will:

- Discuss the learning experience. Has it changed? Have students changed? Have teachers changed? Have institutional pressures disrupted good teaching and learning?

- Share some specific techniques tried in the classroom.

- Develop a list of good teaching-learning techniques.

Activities:

In this session participants:

- Will hear the author's thoughts about creating good teaching-learning environments.
- Will work in small groups to share their thoughts about creating good teaching learning environments.
- Create a common list of best practices to enhance the teaching-learning experience.
- Incorporate the teaching – learning best practices into our present teaching techniques.

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Changing Direction on Campus: The Circular View or the Downward Spiral

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Audience: This session is for teaching professionals eager for holistic student development

As leaders in the classroom, do we have an obligation to challenge our students to a level of global awareness such that their energies are spent on movements for domestic and global social change? Although September 11, 2001 forced many Americans to think globally, are our students passive or active in their understanding of world matters? Picture a campus lawn from the late 1970's. One remembers seeing student-constructed shantytowns dedicated to raising consciousness about the travesties of apartheid in South Africa. Yet, the campus lawns today are stages where students furiously release celebratory or sorrowful outbursts seemingly directed towards the institution's athletics team's wins and losses. As faculty, we are tasked to develop future leaders with a universal moral approach. A model of universal moral development utilizes a "Systems Thinking" approach and expands the student worldwide view. Systems Thinking, a current and trendy business tool used to encourage employee holistic thinking at every level of an organization and it serves as a model for this type of student development.

Objectives:

In this session participants will:

- Discuss the universal moral development of students today. Should faculty be responsible? How can we incorporate it into our curriculum?
- Share some ideas and techniques, new or proven, that will help develop students into systems thinkers.

Activities:

In this session participants will:

- Understand the authors' thoughts on student development
- Will participate and share suggestions and ideas
- Will break into groups and develop techniques so all participants will leave with new ideas to practice in his/her own classroom

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Immersion, Metaphor & Ownership:
Layering Instructional Strategies to Achieve Multi-Modal Learning Experiences

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Introduction:

"How do we help students to recognize the connection between their inner habits of mind and their external patterns of communication?"

"How do we help students to organize their thoughts, feelings and experiences in a manner that articulates effective self expression?"

"How do we help students to own the structures of their own ideas and words?

As a professor teaching basic human communication courses primarily for first and second year college students at a small liberal arts college, I have grappled with such questions time and time again, through a varying array of teaching strategies, with varying degrees of success. Interestingly enough, ancillary experiences in the campus *Distance Learning Program* and in the *Academic Studies Program for Students with Learning Differences* have only confirmed and deepened what I have long believed true in any classroom setting with all kinds of students, collegiate and otherwise: instructional strategy is best prepared, most likely effective and most broadly productive when it is multi-sensory, multi-modal and multi-layered ……in very simple ways.

It is very much, I think, a matter of aligning various simple, but paralleled teaching strategies that manifest singular constructs in different, creative ways. Active learning and educational ownership is best induced when classroom experiences engage cognitive sensibilities on various levels through various modes, and in various ways, while serving singular clear learning objectives. It becomes the instructor's challenge, then, to achieve the desired learning objectives by effectively interfacing his/her individual teaching strategies with the varied learning preferences manifested within his/her students. Perhaps it is "easier said then done," but truly it is "not as hard as it sounds," either!

In *A MIND AT A TIME*, Mel Levine offers fresh insight into this process. According to Levine, our world is inhabited by "all kinds of different people who manifest all kinds of different minds," because people are simply wired differently to do so (pg. 13). The celebrated pediatrician and learning theorist describes eight distinct neuro-developmental networks, or "systems of mind," necessarily collaborating within human beings, in different degrees and with different levels of effectiveness, comprising one's "overall learning health." Levine sees these systems as integral to a person's educational well-being, much as our biological organ systems collaborate and comprise overall biological well-being (pg. 30). The identifiable systems are; attention control, memory, language, spatial ordering, sequential ordering, motor, higher thinking, and social thinking. *(In this way – and in this workshop – Howard Gardner's "multiple intelligences" will come readily to mind as well.)*

This would seem to argue, then, for the implementation of differing teaching-learning strategies with which to address the educational experiences of such differently-minded individuals. Teaching communication structure and design to students who are essentially wired, or structured, very differently themselves demands certain levels of creativity, adaptability, and alternative methodology. This workshop will model some of the varying strategies that I have found successful, and provide opportunity for participants to brainstorm and start developing some of their own.

Objectives:

This workshop demonstrates multi-sensory teaching strategies that are at times and in turn; oral, literate, visual, musical, kinesthetic, spatial, temporal, and interpersonal, amongst others. Participants will learn to; 1) construct their own pedagogical strategies to engage students on multiple perceptual levels, 2) metaphorically align such instructional performance strategies, and 3) illustrate communication design schemas which provide the thematic context of the exercise.

Format:

**Essentially, participants will simply articulate basic, communication design schemas using topical themes. But this simple group task will serve well enough to model a multi-sensory, multi-modal approach to message structuring, a "distinctly un-sexy-but-none-the-less necessary" skill for any first year collegiate student. The nuts and bolts of the workshop will break down as follows:*

1) We will gather in small groups to choose topics (from a short list provided by the presenter) for the group task. The participants will then be introduced to six basic communication design schemas that provide thematic context for the workshop *(i.e., "classification," "chronological," "spatial," "problem-solution," "cause-effect," "comparison-contrast").*

2) We will quickly execute a variety of literate, textual exercises designed to illuminate the group task (*i.e., "21 topical Q's," "un-jumble the statement pile," "fleshing-out the skeleton," "what's my theme?," "what's my pattern?," "match the statement game").*

3) The participants will then rotate through workstations targeting alternative ways to experience and brainstorm about message structure & pattern at work in the world. The work station offerings include, amongst others; video clips from film & television *(*i.e. the film "*Roxanne,"* and tv's *"Law & Order")*, musical illustrations from pop music artists old *(Bruce Springsteen)* & new *(Eminem),* and metaphors from yesteryear that stimulate understanding on elementary levels *(*i.e., of *"crayollas, k-nex, crazy quilts, and Cranium Cadoo").* We will move through the color-coded stations at timed intervals, furthering the modalities manifested in the exercises.

4) The participants will then contemplate the advantages and disadvantages of three alternate class-sharing techniques; *intrapersonal outlining, shared interpersonal reporting,* and *group consensus-building.*

5) We will lastly reconvene as an at large group to discuss the different modalities targeted by the exercises, and suggest other creative ways to implement these processes.

Target Audience:

This workshop is intended for instructors, at any level of the educational process, who are interested in exploring ways to engage student sensibilities on different levels and through different modalities. It may be of particular interest to those who typically teach non-traditional student populations (i.e., returning adult students, students with learning differences, communication apprehensive students) and are searching for better ways to target their varied learning mechanisms. And of course, anyone who toils daily to teach "structure and form" in basic writing & speech classes may find this workshop a welcome way to contemplate alternate teaching strategies.

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Measurement of Attitude Toward Educational Use of the Internet in an English Composition Course With A Comparison of Traditional Aged and Non-Traditional Aged Students

Diana G. Duran, Ed.D.

In this session we will discuss:

- English composition students' attitude toward educational use of the Internet,
- the relationship between students' attitudes and reported behaviors,
- differences between (and similarities of) traditional aged (≤24) and non-traditional aged (≥25) students' attitudes toward use of the Internet and their reported behaviors, and
- relationship(s) between English composition students' attitude scores, reported behaviors, and their gender and academic rank.

Two instruments (adapted from Duggan, Hess, Morgan, Kim, & Wilson, 2001) were used in a study to measure attitude and behaviors:

1. Attitude Toward Educational Use of the Internet (ATEUI) Scale – A 5-point, 18-item Likert scale. Students were asked to indicate degree of agreement or disagreement with each of the 18 statements.
2. Behavioral Correlates Questionnaire – 20 questions about computer usage, Internet use and features, and composition behaviors, including three demographic questions (age, gender, and academic rank), and one open-ended question.

Overall, this study found that the students' attitudes were positive toward using the Internet for their English composition course, with no significant difference between traditional aged and non-traditional aged students in the sample. Neither were striking differences in frequencies of the students' Internet and composition behaviors found. Some, but not all, of their Internet and composition behaviors were significantly related to their ATEUI scores. In contrast, there was no significant relationship between ATEUI scores and students' age, gender, and academic rank. However, relationships between individual Internet and composition behaviors correlated significantly with age, gender, and academic rank. Finally, the qualitative data collected from the students and their instructors paralleled the statistical analyses and indicated that they were aware of and agreed on strengths and weaknesses of using the Internet for English composition.

Forward from the present study, research in English composition could examine more specifically what students' attitudes toward writing are, what they mean when they say their papers are "better" or "worse," especially compared to their instructors' definitions of those terms. Longitudinal studies might help determine how using the Internet affects writing skill, including length and quality of papers, over a period of time. It would also be interesting to learn more about students' specific research behaviors; for instance, how do writing and research processes differ when the Internet is used than when it is not? When students visit the library building, how are they using the resources there, e.g., are they searching online for resources or finding them on shelves?

Because of the progressive structure of a college-level English composition course, it also would be helpful to know what particular variables affect both length and quality of papers and to what extent, including use of the Internet, classroom instruction, assigned activities other than use of the Internet, and practice with both writing and research. The findings of the study make two things very clear: both the teaching and research of English composition have been complicated by use of the Internet, and continuing study is still very much needed.

"Thinking out of the Crate"

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Objectives

Each participant will have the opportunity to discuss ideas from "Thinking out of the Crate ///" to use as tools to deal with problems and issues that arise in the classroom and turn them into positive learning energy.

Each participant will be able to experience positive hands-on learning activities to deal with problems and concerns in the classroom and transfer the technique to their own teaching style.

Each participant will be able to walk away with a resource of eight creative ideas of "Thinking out of the Crate ///" that can be adapted to turn negative situations into a positive learning situation in the classroom.

Format

The participants will start sitting on chairs in a horseshoe formation. In the middle of the horseshoe is a table. On the table is a milk crate filled with equipment for eight different positive learning exercises, to deal with the top eight problems and concerns professors face in the classroom. This is based on a survey done with professors at a random sampling of Community Colleges in Ontario, Canada.

An overview will be done of the survey.

Based on the survey the participants have a chance to try different hands-on exercises from the milk crate to address the different situations.

Situation	Activity	Description
1. Someone else is talking while I am talking.	**Line-Up**	Participants make two lines facing one another approx. 5 meters apart. One **volunteer from each line is blindfolded. They are asked to find a set of keys placed on the floor between the two lines. Both lines cheer on their volunteers. With so much noise, it makes it hard to find the keys. Solution: one person from each line gives their volunteer direction. Debrief.**
2. Some issues are easier to deal with than others.	**Puzzles**	**The students are put into groups. Each group is given a brown envelope with a different puzzle to solve within a time limit. Some puzzles are hard and some puzzles are easy. After a set length of time, the puzzles are exchanged until each group has had a chance to solve each puzzle. Debrief.**

Situation	Activity	Description
3. How to make group work more productive	**Numbers**	**Students are broken down into groups of five to work on a task. Each group gives each member a number from one to five. No. One will be the group recorder, Twos in charge of getting supplies, Threes will be the presenters, Fours will be the timekeepers, and Fives will be the "Paper Holder Uppers". Numbers can be reassigned and members can take on different roles for other tasks.**
4. How to make sure the students realize everyone in their group is important.	**How Many Chicks equals one Turkey?**	**Students are divided into groups of five. One student picks up a package of cards, and randomly hands out cards to each member of the group. The task is to find out "How many Chicks = 1 Turkey?" The information is listed on the cards. Most of the information is gibberish. Everyone in the group must contribute or they will not get the answer. Debrief.**
5. Students realize there are different ways to solve problems.	**Beach Ball**	**The students are given the task of keeping a beach ball in the air for 30 seconds. They get three tries. Once the group accomplishes the task in three tries or less they are congratulated. The group is then asked, "Who has not touched the ball?" "What strategies can be used to get everyone involved?" Debrief.**
6. How to get students to think creatively.	**The Dot**	A large Black Dot is drawn in the middle of a piece of flip chart paper. The students are asked, "What does this dot represent to you?" **All the ideas generated are written down, catorgorized and developed in more detail. Debrief.**
7. How students can achieve more by two way communication.	**Making Snowflakes**	**The students are given a piece of paper. They are given the following instructions. The students cannot ask questions. Fold the paper in half. Fold the paper in quarters. Tear a piece of paper off the bottom left corner. Tear a piece of paper out of the top right corner. Unfold the paper once and tear a hole in the centre. Unfold the paper completely. What do you have? Why are the snowflakes all different?**
8. How to get students to solve their own problems.	**Brickology**	**The students use bricks to build a wall with their problems. They use cut outs of paper hands to solve their problems to build a solid foundation. Debrief.**

<u>Audience</u>

Professors and instructors in the classroom from all disciplines and programmes who would like to turn problems and concerns in their classroom into a positive learning experience for their students.

Using Learning Centers in the College Classroom: Promoting Critical Thinking and Positive Social Interactions

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This presentation describes how learning centers are used in an undergraduate teacher education course (Social Foundations of Education) to study risk and protective factors and how these factors influence youths' development, social environment and decision making. Attendees will participate in the learning centers, discuss this participation and assess the center's effectiveness in promoting critical thinking and positive social interactions. Sample evaluative student comments and work examples will also be shared.

Learning centers are defined as places in the room where materials and specific activities are used for learning (Louhglin and Suina, 1982). A major benefit is that teachers can take advantage of the different ways students learn and how they demonstrate what they have learned. This is particularly important in teacher education as we want to model best practices in teaching and learning. Using learning centers also models a more democratic approach to teaching and learning and works nicely with authentic assessment and portfolios. Furthermore, learning centers can promote a pedagogy that is socially constructed, participatory, and engaging. Learning centers can also lead to increased levels of critical thinking and facilitate positive social interactions among students. These are important outcomes for teacher education as well as general education. The learning centers participants will be engaged in are the same centers used in the ED 310 Social Foundations of Education classes. Small groups are used for the learning centers. The centers are:

1) Gay teens
2) Equal Opportunity
3) Too Many Risk Factors
4) Teen-age Suicide
5) Family Violence
6) Community Programming for All Students
7) School Violence
8) HIV/Aids and STD's
9) Drug and Alcohol Abuse
10) Effective Teaching
11) Gun Violence

These 11 learning centers include various ways of learning and demonstrating what has been learned. Some methods include reading, discussing, writing, creating a poster montage, writing a chant poem, participating in a simulation, watching a video and listening to music. For example, in the Effective Teaching learning center, a small group of students watch a short video clip and talk about whether or not this teacher would connect with students, the motivated as well as the unmotivated. In the Too Many Risk Factors learning center, a small group of students study a photo of a student with a bored look on her face as she stares out the window of a run-down school. Then the group creates a chant poem that captures important elements of the photograph. Within the use of learning centers, authentic assessment and use of portfolios are also examined.

Teachers interested in learning about a pedagogy that is more student-centered and promotes critical thinking and positive social interactions might be interested in this session. Those teachers that already use learning centers would find this session interesting as they may learn a new idea or have their ideas reinforced. Teacher educators might find the pedagogy and content interesting and useful.

Reaching beyond the traditional classroom: Teaching plant biotechnology on line

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Genetically engineered crops are the focus of a spirited public controversy about the potential benefits and risks of applying plant biotechnology to solve major human problems. We have developed a vehicle to provide students and the general public with balanced, accessible, science-based resources that meet their needs for information and education on this controversial issue. The site is available at http://www.colostate.edu/programs/lifesciences/TransgenicCrops/

Principal pages within the site include:

- News Updates
- History of Plant Breeding
- What Are Transgenic Plants?
- How Do You Make Transgenic Plants?
- Evaluation and Regulation
- Current Transgenic Products
- Future Transgenic Products
- Risks and Concerns

We also feature sections called Hot Topics and Special Topics. The Hot Topics section provides links to in-depth coverage on topics of current interest. These links can be rotated out to Special Topics if immediate interest fades.

Under another heading, Special Resources, we have resources for teachers, extension agents, nutritionists and journalists. We offer informational pages, classroom assignments, and PowerPoint presentations, and also links to similar resources available on other web sites.

Our Frequently Asked Questions page has extensive discussions of issues important to many of our viewers.

In addition to the pages written by our team, the site provides citations to the scientific literature and links to other web sites that take positions across the spectrum from opposition to support for genetically engineered crops.

A search feature allows viewers to search for information using words and phrases. We regularly review the summary report of search terms to see if we are providing information on the topics that interest our viewers.

Traffic to the site is monitored and we regularly review the summary reports for information that may help us to improve the site. We can track viewership patterns by time of day, day of the week, and country of origin. We can also note whether search engines have our site listed and whether we maintain a good mix of referrals from search engines and from other web sites.

The site includes an on-line, learner-centered exercise dealing with a controversial biotechnology topic -- the suggestion that Bt corn pollen may harm monarch butterflies. The learner controls the pace of progress through a series of questions designed to trigger a search for information, analysis of information, and application of that information to a problem requiring complex reasoning. At each stage the learner can choose to answer on the basis of his/her existing knowledge or can look for additional information via links to resources (on our site and on other web sites) before answering. The links draw on subject matter in entomology, botany, molecular genetics and agronomy. Thus, the learner receives some guidance toward solving the problem but organizes the interdisciplinary learning experience to suit his/her existing level of knowledge. The correct answer with supporting information is provided immediately after the learner selects an answer to the question. This exercise is intended to enhance critical thinking skills in students.

Audience input will be welcome, both on the web site and on the critical thinking exercise.

The Decentralized Classroom:
Giving Students Knowledgeable Voices

Susan Copeland Henry
Clayton College and State University

As study after study indicates, students learn best from hands-on and collaborative practices rather than from lectures and other such formats. In my world literature and other courses, I have found this to be the case. Through active learning strategies, I engage my students in the act of discovering knowledge for themselves. This session seeks to illustrate methods that I have found effective to engage students as active learners and to give them voices rather than silence them.

The session seeks to:

- Enhance understanding of the role of collaborative learning in knowledge retention;
- Discover means of employing collaborative learning;
- Develop collaborative learning strategies in other courses across the curriculum.

Activities

Session participants will:

- Participate in an initial activity intended to introduce new and relevant knowledge and understanding;
- Discuss how the activity affected their capacity to understand the work they read;
- Discuss ways in which they might employ similar methods in their own courses.

Audience

The audience for this session should be faculty members who want to adopt innovative strategies in order to enhance student retention of the knowledge base in a course.

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Weaning the Learner off of the Teacher-centered Teat

By

Dr. Cheryl Holloway & Dr. James (Jim) Holloway

The cry for change in education has encouraged educators to develop new learning models and implementation processes of those models. Consequently, learners have been the recipients of various teaching models for the expressed purpose of enhancing learning. Once such model is the learner-centered format. This model has been accepted and implemented in many educational systems. It has become a revolutionary model for increased learning and retention.

Even though the learner-centered format has become a part of many educational institutions, processes to implement the learner-centered format have been raised to the question. Traditional ways of teaching inhibits the deployment of the learner-centered format. The learner-centered format conflicts with the traditional style of teaching. Most of the time, instead of changing the old teaching style, the instructor ends up rearranging it. Consequently, what appears to be an implementation of the learner-centered format becomes a rearrangement of the traditional style of teaching.

The purpose of this presentation is to introduce a successful process for implementation for the learner-centered format. First of all, two problems are introduced. The first problem discussed includes the teacher's need to select the correct learner-centered format. The teacher has to change from the teacher-centered approach in order to implement the new learner-centered format. This problem is solved by the demonstration of a learner-centered format that has been presently implemented into a university class.

The second problem discussed in the presentation demonstrates the responsibility that lies with the learner in incorporating the learner-centered format. The learner must "buy in" to the process in order to implement it. Most learners are conditioned to the teacher-centered format and thus have learned to manipulate this old system to achieve success. This problem was solved and will be demonstrated in this presentation on how these university learners evolved their learning style to incorporate the learner-centered format.

For the past two years this learner-centered approach has been deployed in a university kinesiology/biomechanics class. In most universities, prerequisites for this class include anatomy, physiology, physics, and algebra-trig. This is a required course for certain majors and many of these learners enroll with negative attitudes about taking science or math classes. The Kinesiology/biomechanics class is a science-based class including a lab. In order to get the Kinesiology/biomechanics class learners at this university to change their learning paradigm from teacher-centered to learner-centered, the correct deployment process was crucial.

The success of this deployment process was demonstrated by student enthusiasm, in increased attendance, grade success, and communication/sharing amongst class members. Also, journal inserts stated appreciation for the class content knowledge and the learner-centered format.

Inspiration 7 software: Brainstorming made easy and useful.

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The purpose of this presentation is to explain the benefits and liabilities of Inspiration 7 software. Inspiration 7 is designed to be used in classroom settings, and is primarily for educational purposes. Essentially the program provides tools for designing flow charts and decision guides. Its value is found in the ease of use and the visual nature of its display, allowing users to see visually the links between concepts and ideas.

According to Inspiration's literature, " Inspiration 7 [lets one] think and learn visually. Inspiration allows you to create a picture of your ideas or concepts in the form of a diagram. It also provides an integrated outlining environment to develop your ideas into organized written documents. Inspiration combination of visual and linear thinking helps deepen understanding of concepts, increase memory retention develop organization skills, and taps creativity…When you work with visual representations of ideas, you easily see how one idea relates to the others. Learning and thinking become active rather than passive."

The software seems well suited for use in a classroom situation. In the typical classroom setting the idea of brainstorming is often stymied by the lack of interaction between the teacher, and students, or even more importantly between the students themselves. It has been my experience that the notion of brainstorming bears more resemblance to a light drizzle, than a full storm. Often the brainstorming sessions are less than they might be because there is little to engage the students. The presentation will allow the audience to participate in brainstorming activities utilizing the Inspiration 7 Software.

"I Read the News Today, Oh Boy!"

Getting Behind the News to Develop Critical Thinking Skills and Information Competencies

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As teaching members of our communities we want our students to master, if not become fluent in, those skills that will allow them to be interested and active citizens in the communities where they live. The newspaper and newsmagazines are two significant sources for our students and the public at large that inform the person's interest and facilitate action at the community, national, and international level. Yet we are keenly aware of the challenges to an understanding of events and their contexts that we and our students often face when reading "the news": oversimplification, missing background information, biased reporting, etc. Thus, the development and assessment of skills in analyzing the content and evaluating the arguments found in print news sources are important goals for students. News articles can be useful and convenient devices for fostering these critical thinking skills in our students' repertoires. In addition, they can serve as vehicles for the development and/or strengthening of valuable competencies in the application and evaluation of information technology.

One strategy to encourage students to become savvy consumers of print news is to take them through and behind news articles to primary text sources and/or web-based documents. Beginning with a newspaper or newsmagazine article, the student is given a set of guidelines to first analyze the article. This analysis results in a clear, explicit statement of (1) the conclusion of the article; and (2) the support, or reasons, that the writer offers for the conclusion.

The next step in the process provides hints to the student for finding additional sources that include empirical evidence relevant to the news article's conclusion. The additional sources can be text (e.g., journals) and/or web-based. The text and/or web-based materials are then employed to evaluate the news critically, with the students finally completing the circle by drafting letters to the editor incorporating content from one or more primary sources.

The specific objectives of the presentation are as follows:

- To describe briefly some essential elements of critical thinking.
- To describe a process utilizing news articles to foster the identified critical thinking skills and additional information competencies.
- To have participants engage in each step of the process.
- To discuss assessment considerations in this process.

This presentation takes participants through all of the steps in the process. Beginning with reading and analyzing a news article, participants then discuss search strategies for discovering one or more related primary sources. After examining a related primary source, participants critically compare the news article with the primary source(s). The comparison is followed up with the drafting of a letter to the editor in light of information in the primary source(s).

Lastly, strategies for the identification and assessment of specific student skills in thinking critically, information competencies, and writing skills are addressed.

The intended audience for this presentation includes faculty teaching critical thinking courses or critical thinking components in their courses, and faculty desiring to incorporate elements of critical thinking in their courses. Although the examples emphasize topics in psychology, faculties from any discipline are welcomed and the adaptation of this process to their disciplines is facilitated.

THE ROLE OF MOTIVATIONAL ORIENTATION AND SELF-MANAGEMENT IN PERFORMANCE IN ONLINE AND CLASSROOM ENVIRONMENTS

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There has been a significant amount of research comparing academic performance of students in traditional classroom courses with those in online courses. The general conclusion, when comparing average performance of students in these two environments, is that there is no statistically significant difference. Much less research has attempted to identify individual differences of students who perform better with one teaching model over the other. Two student characteristics which have been demonstrated to be related to both academic and on-the-job performance are motivational orientation and self-management, specifically self-managing self-efficacy.

One motivational orientation, the learning goal orientation (LGO) , is self-referential in terms of performance, emphasizes adaptive learning techniques, task involvement, seeking challenges, and deep processing of course material (Harackiezicz, Barron, Tauer, & Carter, 2000; Ames, 1992). Competence is demonstrated by acquiring and mastering new skills. One with this approach seeks skill and ability as improved through effort. The other orientation is performance goal orientation (PGO), which focuses on exhibiting competence by other referent approach. That is, this approach compares one's performance to that of others. PGO uses maladaptive learning strategies while avoiding risk of failure and challenging work. The individual with a PGO views ability as fixed and high effort as an indicator of low ability. Research has generally found that an LGO has been related to exam scores, GPA, grades, planned use of greater effort in the future as well as to work performance (Button, Mathieu, & Zajac, 1996; Phillips & Gully, 1997; Stevens & Gist, 1997; VandeWalle, 1999). On the other hand, a PGO has been demonstrated, in most research, that it is unrelated to performance.

Self-efficacy is one's confidence in being able to perform or to accomplish a specific task. It influences behavior by determining task choices, effort, and persistence (Wood & Bandura, 1989) and is predictive of academic and work-related achievement. Self-management is an aspect of self-efficacy which is also related to accomplishment. Those high in self-management tend to set goals, seek or generate feedback to identify progress toward the goal, and develop alternative strategies when obstacles arise (Pintrich & DeGroot, 1990; Frayne & Geringer, 2000).

Objectives

The overall objective of this paper is to investigate what differences in motivational orientation, and self-managing self-efficacy exist between the performance of students who have taken both online and classroom courses. Workshop participants will

- ✓ Assist people in identifying those students who are more likely to succeed in one teaching environment over another;
- ✓ Become familiar with those characteristics which are related to academic success in different teaching models;
- ✓ Identify techniques that they can use to encourage a motivational orientation and a self-managing approach in their students; and
- ✓ Identify techniques that students themselves can use to improve their academic performance.

Audience

This workshop is directed toward faculty members who wish to develop techniques and to reinforce student behaviors which encourage a motivational orientation and self-managing self-efficacy to improve academic performance, depending on the learning environment.

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"When Teachers are the Learners: Professional Development for Adjunct Faculty"

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For a variety of reasons, adjunct or semester-to-semester faculty members are not fully integrated into most university academic departments. They

- often are hired just before a given term begins,
- typically teach a heavier load than tenure-track faculty,
- sometimes teach at more than one institution to meet their financial needs,
- generally teach introductory and lower-division courses.

Under these working conditions, adjunct faculty often feel they have little time or energy to devote to professional development. Yet precisely because they work with students being introduced to academic disciplines, these faculty members need to be among the most creative and flexible in shaping the curriculum, classroom activities, and feedback methods to students' needs.

In this session, I plan to engage the participants in describing both their adjunct faculty working conditions and any professional development opportunities offered to them. We will then discuss barriers to full participation by adjunct faculty in professional development. Based on models of faculty development in my institution, we will then generate models of professional development activities that participants can adapt to their own settings. The models will emphasize ways that adjunct faculty can meet specific program needs while simultaneously engaging students in student-centered learning, particularly through varieties of group work and writing activities (paper and electronic).

The session will include general question-and-answer segments as well as individual writing and small-group activities.

The intended audience for this presentation includes adjunct faculty (who might wish to argue for more professional development opportunities in their home institutions) but primarily tenured University faculty charged with hiring and supervising adjunct faculty.

Enhancing The Scholarship of Teaching Through Inquiry

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More than a decade ago Ernest L. Boyer challenged the academy to reconsider scholarship, to enlarge the perspective of scholarship and to celebrate the mosaic of faculty talent. The challenge for professors, as articulated by Boyer, is to be pushed by students to new creative directions (Boyer, *Scholarship Reconsidered*, 1990).

While Boyer's concept of scholarship was directed at faculty of post secondary institutions in general, it is of particular importance to those of us engaged in teacher education as we are concerned with the teaching and learning of a diversity of people of all ages and circumstances in a multitude of learning contexts. It was with this multidimensional perspective of learning and inquiry about learning in mind, that our College of Education graduate program developed an Inquiry Seminar as a choice for the capstone of our master's degree.

Seminars are designed to support faculty members in their intellectual pursuits while providing graduate students with a learning experience based on collaborative inquiry. Professors communicate an area of interest and graduate students select a seminar matching their own interests.

The inquiry may focus on particular teaching practices of concern to individual participants, or the professor may generate the theories and questions directing the action research.

The Inquiry may also take the direction of more introspective, creative or politically oriented endeavors. Theories of adult learning suggest that all human beings have a need to understand their experiences and to make sense of what is happening in their lives. The Inquires provide opportunities for critical reflection as well as a supportive environment for discourse.

Each seminar experience is unique as the learning becomes a social matter. Thus, the experience for the professor is ever changing as each group and each topic of inquiry provides new challenges.

Inquiry Seminar groups have chosen a multitude of processes, products and avenues for sharing their work. These products are often as creative and distinct as the individuals participating. Inquires have resulted in a public debate, implementation of classroom teaching strategies, development of educational policies, involvement with community programs, fund raising, performance of an original drama, historical research, autobiographical studies, environmental and conservation efforts, to cite a few examples.

As a culminating experience each semester participants completing their inquires come together to share, perform, and encourage, during a day devoted to the fulfillment of self-discovery, professional development and collegiality.

We were particularly interested in how and why a professor selects a topic, determines the method for investigating that topic, and the means for distributing information gained during the inquiry. We also wanted to investigate the impact of the inquiry on the professor's scholarship and teaching.

With this goal in mind we interviewed colleagues regarding one or several Inquires they had conducted. The following questions structured those interviews:

1. How have you determined topics for you seminars?
2. Describe the process of inquiry in your seminars.
3. How have questions/direction for the inquiry been formulated.
4. Define inquiry.
5. What have been the final products students have created? How are they chosen?
6. What have been the effects of the seminars for you? For your students?

Our investigation not only resulted in insightful responses to these questions, it also provided us with an opportunity to reconsider our own perspectives on the processes and goals of intellectual inquiry.

"Adding a Virtual Component to your Course - for Free!"

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Audience: Anyone desiring to add a virtual component to a course.

Presentation Outline:

In this workshop various (free) virtual teaming technologies will be demonstrated and participants will be given the opportunity to work with these technologies. Both the technological and human side of virtual teaming will be discussed and participants will be given the opportunity to share their best practices on incorporating technology into their classes.

Objectives:

Explore various virtual team technologies.
Explore the human element of working in a virtual environment.
Discuss best practices on how to incorporate address team building and communications in class projects.

Abstract:

The virtual work environment has arrived. Collaboration among employees is becoming increasingly more important as work becomes more technical and specialized. The methods of collaboration are also changing as the need to connect employees from different geographic locations is becoming the norm. Many organizations are moving towards virtual teaming. Virtual teaming also known as a Geographically Dispersed Team (GDT) - is a group of individuals who work across time, space, and organizational boundaries with links strengthened by webs of communication technology. The growth of e-capability technologies, the force of globalization, and easy availability of groupware (e-mail, teleconferencing, threaded discussions, etc.) now makes the virtual workplace both desirable and inevitable. Information management is becoming increasingly more difficult as workers now find themselves working across geographies because it is possible to do it. The challenge facing many organizations is that the virtual organization is more complicated than it appears to be. Electronically connected workers succeed by understanding the technological tools at their disposal and by knowing how to create collaboration and communication among people who might never "meet". In order to effectively work in the e-environment employees need to become proficient with the technological aspect of working in this virtual environment and just as important they need to have experience in the human side whereby the interaction is through a virtual technology instead of face-to-face. Out-of-the-box technologies can enhance communication among the work related partners in the following ways:

- Real-time collaboration using e-capability technologies allows companies better communication and services with customers, partners, and suppliers.
- Virtual teaming allows team member to work together on aligned tasks and to collaborate more in a real time basis.
- E-capability technology allows team members to maintain healthy relationships in order to support the team's tasks.
- E-capability allows team members to transcend common communications barriers.

Companies that use virtual technology say that they save money, that it results in more productive and effective use of workers' time, and ultimately generates better products because of the collaborative nature on the team.

The virtual workplace is here to stay. It's a concept that makes sense but effectively incorporating it is not ease. The virtual world is enamored with technology but finding the right mix of technology and people is a major concern.

A decade ago the virtual workplace was almost nonexistent. Today, technology, globalization, and the need for fast responses to marketplace demands have dramatically changed the way business is conducted. According to research by

Gartner, Inc., 137 million workers worldwide will be involved in some form of remote electronic work by 2003. The following table shows the projected growth in the virtual workplace:

Employee's time spent…	**Year 2000**	**Year 2010**
Working alone	40%	30%
Working with others in the same time and place	15%	5%
Working in different place and same time	30%	25%
Working in different place and different time	30%	40%

In order prepare students to lead in the virtual world it is necessary that they be exposed to and develop the skills necessary to not only manage the e-capability technology but to also manage the human element in the transition to and working in a virtual environment.

There are a variety of technologies that are readily available that can be used as part of class assignments to give students the opportunity to use and experience working in a virtual environment. These tools can be incorporated into any class that requires students to interact with one another on class assignments.

Lit for Linebackers
Darby Lewes

This mock "Intro to Lit" class--along with a running commentary explaining what I'm doing and why--is the basis of my presentation. It demonstrates how in-your-face teaching can be highly effective when used in a safe, nurturing environment; how immediate reward (and the competition for that reward) can be used as motivation; how even unwilling students can be drawn into sophisticated analysis if the subject covered directly relates to their own concerns; and how ingrained resistance can be overcome by pure positive reinforcement.

Everyone, regardless of discipline, must teach it: the distribution course, populated almost entirely by non-majors who are there simply because they must be. My version is the dreaded Introduction to Literary Interpretation, described in the catalog as "Practice in the methods of close reading and formal analysis; identification of primary elements and structures of literary presentation." Non-majors consider it as the least detestable (i.e., the "easiest") of the required humanities offerings, and the class is thus at once simultaneously unpopular and full.

Poetry, with its intense and condensed language, is the medium in which those "primary elements and structures" so highly touted in the catalog can be most readily isolated, and is consequently the most useful in an introductory class. But when I asked students to jot down (anonymously) their initial response to poetry, the results were less than heartening.

Typical responses included the following:

1. Poetry is dumb and boring.
2. Poetry [sic] sucks.
3. Poetry is written by a bunch of queers for another bunch of queers to read.

My initial attempts to engage students were a series of fiascoes. Convinced that they had never experienced really "good" poetry, I inundated them with the best of the best: Milton's sonnet on his blindness, Gray's elegy, Shakespeare's "fortune and men's eyes" sonnet. Student resistance was almost palpable. Next, I attempted to use "cool" poetry--the work of Bob Dylan and Jim Morrison, for example. This was met with rolled eyes and surreptitious flashing of "V" signs. Finally, I introduced examples of "their" poetry: hip-hop and rap. But while I learned a great deal about rap imagery ("I ain't gone send him on his way/Put him up in that big caddy," for example, means that the narrator has no immediate plans to murder his associate), I discovered the students learned nothing about "primary elements and structures of literary presentation."

Back at square one, I began again, this time establishing a specific set of goals for the first class:

1. Make the reading of a poem a positive experience.
2. Teach students the rudiments of close reading.
3. Teach them to isolate a theme.
4. Teach them to compare two works and recognize thematic similarities.

   And, since this was probably the only exposure to "serious" literature that many

   of them would receive,
5. Use a canonical text.

I decided to use Robert Browning's "Porphyria's Lover," a creepy little poem about a sociopath who strangles his girlfriend. Although written in semi-elevated language, it tells a story of sex and violence with which virtually any 20th-century adolescent can identify.

Then there was the selection of a format. Group work was out; the hostility levels were far too high. A lecture would enable them to tune out and drift away. I chose instead a method that was at once safe and highly confrontational; after reading the poem aloud, I moved directly into the seating area and posed direct (albeit extremely simple) questions. An example:

1. First question (not meant to be answered): "Tell me about the narrator." No response.

2. Move to individual student and ask second question: "would you fix him up on a date with your sister?" Heartfelt response.

3. Move back and ask class third question: "Why not?"

By answering the second and third questions, which are virtually impossible to get "wrong," students make a judgement about the narrator. At that point, I can begin to engage them in close reading, enabling them to determine that Browning inserted careful hints from the very beginning of the poem that the narrator is indeed a loony. Then we move to the character of Porphyria.

And that's how we get through the poem. I'm in their faces--there is no escape--but there is also no negative reinforcement. I'm shameless about rewarding thoughtful responses; I'll even slam down a "handsome silver trophy" (a quarter) on the desk of a student who's making any sort of effort. (Quarters are, of course, the lifeblood of student existence, since they feed washing machines and dryers.) Eventually, students will start to feel smart, a self-reinforcer if there ever was one, and they'll also begin competing for the reward/tangible emblem of success. (At graduation last year, I discovered that one fullback had carried his "trophy" for three years as a lucky piece.)

After we've covered the entire poem, I'll ask students to select a single word that they perceive as essential to the theme. (By now, twenty minutes of pure positive reinforcement has convinced them that they have a shot at a "right" answer and won't be ridiculed for a "wrong" one.) At this point, they have already seen how elements such as class, gender, and power have driven the poem, and, while they may not understand metaphor yet, they certainly grasp how the impact of class, gender and power affect them, and how certain words are key to these themes.

Finishing "Porphyria," we move to a second poem, Browning's "My Last Duchess," a creepy little poem about a sociopath who has his wife murdered. And it is then that the learning really takes place. After I read the poem aloud, there invariably is a silence, and someone, usually in the back, will mutter, "Shit, it's the same damn poem." Which, thematically, it is; but the level of literary sophistication required to recognize that fact is generally expected only in upper-level undergraduate students. My class is generally amazed by itself, and many students ask if we can "do" another poem next time. Success is heady stuff.

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Designing Instructional Activities for the Web

Liz Lowe

Web-based instructional activities range from technologically simple to complex. Simplicity and complexity are not however measures of an effective learning exercise. The use of the web itself, in mediating student learning, has generated much discussion and debate in higher education. Many anecdotal reports and studies have focused on optimal aspects of web-based instruction for both teaching and learning. But, likely there is a fuller story as we investigate individual instances. Recent work in developing web-courses in a university environment, over a three-year period, provides a road map for developing web-based instructional activities. This presentation describes the process used to design, develop, and implement web-based instructional activities, including the pros and cons and successes and pitfalls. A general introduction to web-based instructional activities leading to more specific instructional matrices, sample activities, required expertise, types of educational course sites, levels of instruction, and unforeseen challenges are presented as well as suggestions to overcome potential problems.

One sample activity will review a group project assignment that makes use of multiple course tools, such as the discussion board, chat room, and email for collaboration. Potential pitfalls of group projects will be discussed such as self-selection issues and student technology constraints. The common use of Internet site searching as an activity will be reviewed from a pedagogical perspective, with emphasis on learner-centered designs. Effective methods for providing this activity will be discussed and some suggested practices to avoid when asking students to search for sites will be provided. Frequently, games are used as an activity to get students involved in the course materials. A discussion and review of the effectiveness of learning games will be provided such as the use of matching games that promote memorization and the use of the Internet scavenger hunt.

The experiences of the development team are presented, together with examples (via computer and handouts) from courses that show an analysis of the work, time, and people involved. The presentation concludes with a discussion of participants' experiences on their own campuses and may be helpful to those who are beginning to develop web-based instruction.

Objectives:

1). Identify pedagogical rationales for designing instructional activities.
2). Review various tools available for implementing instructional activities online.
3). Apply pedagogical analyses to sample instructional activities.

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Survival Techniques for Promotion and Tenure While Maintaining Teaching Excellence

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Objectives

- To develop survival techniques for the participants engaged in the stress of the promotion and tenure process
- To develop strategies for "doing more with less"

Target Audience

All faculty current pursuing promotion and tenure either to the rank of Associate or Full Professor

Format:

This presentation will include a brainstorming session to develop synergy and survival techniques. We will share our strategies and solicit yours, with "Best Practices" outcomes being gathered for a potential Explorations in Teaching and Learning piece (All workshop participants will share writing credit, of course! Our first strategy!).

Abstract

When the President of our University (Research 1) was asked by a faculty member what was expected of the faculty, he replied, "Whatever you are doing now, just do one more thing. And do it well. If you are great at teaching, improve your research." The implication – fit more activities into our already busy schedule. You can imagine the emotions in the audience that this triggered.

Universities are faced with decreasing budgets and increasing tuitions, along with resultant increasing expectations of our students. If we increase tuition by double digit percentages, will the student still be unable to find a job when they graduate? If the legislature freezes our funding, etc, etc, etc. However, there are still only 24 hours in a day.

Gaining promotion and tenure has always been daunting and emotionally draining experience for some candidates. The process can be painstaking, with hand-wringing, heartache, and enormously hard work. It involves agonizing waits and tough judgment calls. And now it requires synergy of effort.

Tenure and promotion review involve a weighing of diverse factors. Research, teaching and service are the big three, but politics and funding also can influence the decision. All of us who are making our way toward tenure and promotion know the field, but how do we figure out the game. The tenure decision varies widely from institution to institution – from discipline to discipline. How can we decide where to focus our energy? What is valued in the Promotion and Tenure Process? How can we do more with less?

Teaching and learning has always been very important to us. But we must get promoted/ tenured to stay and perform that function. In the past, teaching and service were the crossbars for us. With a new administration, teaching, service, AND research are the measures. And like the President said, "No matter what you are doing, just do one more thing. And do it well." That is the problem we would like to propose. Can you help with the solution?

"Teaching the Impact of the Feminist Movement with the Seneca Falls Declaration of Sentiments"

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My presentation, "Teaching the Impact of the Feminist Movement with the Seneca Falls Declaration of Sentiments," illustrates the learning effectiveness of cooperative and collaborative teaching methods. The purpose of the exercise is to help students think about how far women have come since the U.S. women's movement began with the Seneca Falls meeting in 1848. The students read excerpts from the Declaration of Sentiments, the list of grievances that the women presented in 1848, and discuss in groups whether the grievances have been met. This presentation is suitable for a number of courses in the social sciences and the humanities including history, politics and sociology.

I start the exercise by breaking the students into small groups. Each group is given a handout that lists four specific grievances from the original Declaration of Sentiments and a fact sheet on the status of women in the United States in the year 2000. Among the facts listed on the fact sheet are the number of women in Congress, the earnings of women, the number of women in managerial and professional positions and the number of women with higher education degrees. Each member of the group is delegated a number. The groups read the excerpts from the Declaration of Sentiments and discuss whether or not the grievances have been redressed fully, partially, or not at all.

At the end of the small group discussion, I decide who will report to the whole class the nature of the discussions in the groups. This method of announcing who will report to the class only at the end of the discussion makes everyone in the groups participate and pay attention to the small group discussion. This whole exercise helps students think about the impact of the feminist movement, encourages them to discuss their ideas with other students and makes everyone in the class engage in an informed discussion not just a vocal few.

Facilitating Discussions in WebCT

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When using WebCt as the basis for an online undergraduate course, instructors frequently opt for a presentation approach to learning. Students are encouraged to read textbook selections and lectures in WebCt, followed by questions and tests that assess recall of basic facts. In lieu of this more passive approach to online learning, instructors may rely on the notions of constructivism, that is to invite students to construct knowledge for themselves rather than receive it from others. (Brooks and Grennon Brooks, 1999). Instructors structure lessons to challenge student suppositions and relate them to their lives. By using constructivism in online courses, instructors may lead students to transformative learning, a powerful term coined by Jack Mezirow in 1990 that refers to learning based on reflection and interpretation of experiences, ideas and assumptions. Opportunities to self reflect, to interact with the environment, and then grow from these experiences, afford active learning encounters for students, not a mere construction of facts, but a transformation of their very beings.

By developing a sequencing of assignments in an online course that meet these criteria, an online class may prove to be more enriching than face-to-face sections. Students interact with their instructor, the technology, their peers, the content, and with their inner selves as they dapple with ideas through online Discussions. This session will center on ways to use collaborative learning in online courses to enhance discussions on WebCt. The method entails a procedure for setting up collaborative groups that draft, interact, revise, post, and then respond in rich discussions. By collaborating, revising, and then responding to other groups' efforts, students are able to reach higher levels of cognitive learning while creating a community of learners, an important component of online courses. This presentation will demonstrate a heuristic in a step-by-step approach and provide illustrations of student work throughout the process. In addition, a review of the basics of question types, both Convergent and Divergent, will demonstrate the types of responses that students compose in classroom settings when asked to respond in writing (Mattson-Evans, 1992). This information reinforces the importance of planning questions in assignments that lead to the highest level of transformative learning for students.

As Palloff and Pratt in Building Learning Communities in Cyberspace (1999) recommend to instructors in online learning courses, " throw away agendas and a need to control in order to let the process happen and allow for the personal agendas of the learners to be accommodated" (29). At first I was not certain how this actually happened in my own class, but I think it occurred while I was struggling to download something on Webct; my back was turned and my students were busy collaborating and discussing on their own. When I turned back around, there were these wonderful responses, opinions, and admissions in Discussion—rich with depth and ideas. I had not done anything except set up the forum, which is what I will present to my audience in this session.

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Macroscopic and Microscopic Anatomy Come to Life via WebCT

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Objectives:
This session will highlight and demonstrate how WebCT is currently being utilized to deliver two highly visual topics to undergraduate biomedical students around the United States via the Internet. The techniques utilized are applicable to all science disciplines/content.

Intended Audience:
Faculty, instructional technology and design personnel, and distance education directors might find this approach practical and usable for promoting online course development.

Summary:
Two courses, Domestic Animal Anatomy and Histology, are offered entirely online and utilize Flash animations and video briefs in combination with regular images and colorful diagrams to capture the visual attention of students. Interactivity is created by inserting mini-quizzes within lectures, summary quizzes at the end of each lecture, weekly online chats, and image manipulation within the laboratories. One of the unique technologies available in the Domestic Animal Anatomy course is the use of three-dimensional anatomical figures students can "grasp and rotate," allowing them to view an anatomical image much like picking up a gross specimen in a face-to-face laboratory. In addition, the animal anatomy course presents a series of case studies prior to each online examination. These case studies are intended to help students apply the knowledge gained in previous lectures to actual cases involving relevant anatomy. Students are first presented with "Case Quickies," which, for example, may be a series of videos of lame animals. Students are asked what part of the anatomy must be dysfunctional in order for the biomechanics or movement of the animal to appear as it does in the video clip. Following the Case Quickies, a more in-depth problem-based learning case is presented and leads students through the process of problem-solving including initial presenting signs, history, physical examination, diagnostic tests and their interpretation, and treatment (although anatomy is the primary focus of the case presentation). The Histology laboratories have utilized Flash technology to create an innovative simulation of manipulation of a microscope. Microscopic slides can be viewed at different powers, while important structures are highlighted via clicking on relevant terms in the accompanying narrative.

Format:
Interactive presentation/demonstration

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Teamwork Model for Creation and Development of Online Science Courses

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Objectives:
The objective of this presentation will be to outline a fresh perspective on how to recruit and motivate faculty to become in the development of online courses. The strategy we will describe allows faculty to concentrate on content in their area their area of expertise while minimizing the necessity of them to have advanced skills in computer technology and web design. By reducing the expectation for technology skills, faculty can experience less stress and commit less time to online course development.

Intended Audience:
Faculty, instructional technology and design personnel, and distance education directors might find this approach practical and usable for promoting online course development.

Summary:
This presentation will focus on an innovative strategy to create and develop online courses that minimizes faculty reluctance, apprehension and demands on their time. Though many faculty are interested in the possibility of delivering their courses online, concerns about time demands and fear of technology often keep them from actually initiating the process of course development. This session will demonstrate the effectiveness of a small team of individuals who came together with the specific intention of creating online lectures to optimally utilize the time and expertise of the content faculty member. Specifically, two lectures in a science course were used to test the feasibility of this approach. The content expert was asked to have his lectures videotaped and make his images available. He was also asked to review the online lectures, edit for content accuracy, and write review and examination questions. A second team member, who had experience developing online science courses, transcribed the lectures in a format compatible with online delivery. A third team member, an instructional designer, provided oversight and guidance about course design, development and evaluation. Finally, the fourth member was a student employee who located and digitized images, uploaded and manipulated materials in WebCT, and put finishing touches on the lectures. When completed, the course will be offered to a variety of audiences including licensed veterinarians seeking continuing education credit, second-year veterinary students fulfilling a degree requirement, ranchers and other interested members of the community seeking personal knowledge, and undergraduate students in Animal Sciences taking an elective course. The broad audience demand indicates the need to create a system where faculty members are encouraged to overcome their concerns about online course development.

Format:
Interactive presentation/demonstration

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A Presentation
Making a Case for Case Studies

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The participants will:

- identify the characteristics of a case
- examine the use of cases across varied disciplines
- recognize how cases enhance learning through use of contextual teaching
- discuss how cases increase student interest and motivation
- apply the case method approach to a specific unit of study

Audience:
This presentation will appeal to instructors across disciplines that seek an instructional approach that is relevant, contextual, and motivational.

Format:
The presentation will involve the participants in meaningful discussion and activities as they explore the possibilities of the case as an instructional method in their content area.

Abstract:
Case studies are most frequently used by instructors in the areas of medicine, law, and business as a means of teaching principles in a reality-based context. As students examine cases that focus on issues and problems that are relevant to their future professions, they are challenged to use their critical thinking skills to gain essential knowledge. The case is a means of experiencing an event intellectually and emotionally without actually being there. Thus, learning vicariously through a case becomes an efficient as well as an effective learning tool.

The case study can be used in many disciplines as an instructional strategy that promotes reflection, inquiry, and meaning. Within many content areas, the abstract can be made more concrete, the general can be made more specific, and the tedious can be made more interesting. For example, a historical event can be presented as a case for students to examine the underlying beliefs, values, or assumptions of the agents. In science, an experiment can be presented as a case for students to consider how manipulation of the variables could affect the outcomes. In teacher education, a case describing a new teacher's classroom management problems can be analyzed to reach understanding and resolution.

Instructors across disciplines continue to look for alternatives to lecture and discussion so learning can be made more meaningful and memorable. The case study offers a different approach that supports student engagement, critical thinking, and application of knowledge to real-life situations.

JiTT WrapAround: Total Coordinated Web Support for Classroom Instruction

Gregor Novak and Evelyn Patterson, U.S. Air Force Academy

In the last few years the emphasis in college teaching has shifted from teacher centered activity--primarily lecturing and presentation skills--to what the student does (Barr & Tagg, 1995). We now focus more on understanding, active and collaborative learning, technology, assessment, and practices informed by faculty research in their disciplines, and less on lecturing, rote learning and drill. Since much of the responsibility for learning is up to the students, teachers enhance learning by helping students to improve their study skills and to develop metacognitive thinking rather than changing the teaching performance (Angelo and Cross, 1993). The educational construct known as "time on task" holds that focused study time increases student learning. Out-of-class assignments increase student study time and structure student learning. One way to set high expectations is to demand serious effort on out-of-class assignments. The advent of the web technology in the late 90's created an environment in which students have access to an around-the-clock support structure that was unthinkable in the pre-internet era.

At this meeting we examine some creative uses of the web to support classroom teaching and learning with in-depth attention given to the Just-in-Time Teaching strategy, JiTT, developed by the presenters and their colleagues over the past seven years (Novak et. al., 1999). JiTT is presently used in over 200 courses at over 80 institutions. These courses span almost 30 disciplines, including all SMET and numerous humanities disciplines. The key feature of JiTT is the creation of a feedback loop between in-class and out-of-class learning. The pre-class warmup exercise prepares for the student-faculty interaction. This timely activity breaks down the student-faculty and student-student anonymity barrier, a feature of particular importance in large enrollment classes. The preparatory work also creates a need to know. The pre-class questions are constructed in such a way that even the weaker and less interested students have their interests awakened. Even though they may not be yet convinced that the lesson's content will be useful, or even interesting, they want to know what the bottom line answers to the questions posed in the assignment are. Reading the student responses also prepares the faculty for the lesson meeting. Essay responses particularly offer a glimpse into the student thinking, revealing misconceptions and other weaknesses that can be addressed in a timely fashion. Each assignment page also features a free form comments box. Once students get used to it, they offer invaluable suggestions. We reported on this at the 2001 ISETA meeting in Indianapolis.

Recently we have extended the loop to include post-instruction web-based assignments which attempt to help students master the learning process as well as the subject matter content. The technique has been developed in the introductory physics courses (N = 500) at the U.S. Air Force Academy. An interesting feature of the approach is that the electronic assignments not only deal with the subject matter, but also attempt, with considerable success, to promote the development of meta-cognitive skills, often ignored in traditional instruction. Many students work on these assignments in our EI (extra instruction) classroom which is open (and staffed by faculty members) every day. Student responses and direct faculty experiences in the EI room inform and motivate subsequent pre-instruction warmup assignments and subsequent lesson plans.

Both pre-instruction and post-instruction JiTT assignments are informed by the results of scholarly work in education and cognitive sciences. For example, the questions in the pre-instruction JiTT warmup exercises often target a particular cell in the modified Bloom taxonomy scheme in a two-dimensional matrix (Anderson, et.al 2001). The two axes of the matrix are "the knowledge dimension" axis with knowledge categories: factual, conceptual, procedural, metacognitive, and "the cognitive process" with cognitive categories: remember, understand, apply, analyze, evaluate, create.

The post-instruction JiTT assignments follow the scheme of Thinking Frames as articulated by D.N. Perkins (Perkins, 1986). Perkins (page 47) defines a thinking frame to be "a guide to organizing and supporting thought processes". More often than not, instruction emphasizes propositional knowledge (the facts) at the expense of the procedural knowledge (the know-how of what to do with the facts). Thinking Frames are an elaboration of the notion of tactical intelligence, a "repertoire of strategies one can deploy for a given task" (Perkins, page 43). The post-instruction web based JiTT assignments constitute our attempt to help the students acquire the thinking frames along with the subject matter content.

With hands-on examples from physics and other science disciplines we will illustrate the JiTT approach. We have found this approach to be applicable in all learning situations and will encourage the participants to investigate how JiTT might be adapted and adopted for their particular situations. The participants will leave the session with a set of start-up tools to take to their own classrooms.

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The Writing Studio: A Flexible, Online Learning Environment For Writing Across the Disciplines

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In the last two decades, the teaching of writing – as well as the writing processes used by most writers – has been transformed by technologies including word processing software, grammar and style checking tools, electronic communication tools, and the World Wide Web. However, as profound as these changes have been – and they have affected millions of students over the past two decades – they remain firmly rooted in a conception of writing and writing instruction that long predates the information age. Even the most forward-looking technologies used in writing instruction have largely replicated or improved upon earlier technologies. Course management systems such as WebCT and BlackBoard, for example, are based on a model of teaching that differs little from traditional, lecture-based classrooms. Web sites that support writing instruction, such as the many Online Writing Labs that have been developed over the past eight years, provide information that largely replicates the format used by print handouts, worksheets, and textbooks.

These developments stand in stark contrast to what writing teachers and scholars envisioned when they first began to explore the role computer technologies might play in writing instruction. Consider, for example, William Wresch's collection, *The Computer in Composition Instruction: A Writer's Tool*, published by NCTE in 1984, in which contributors suggested that computer technologies could enlarge a writer's awareness of his or her own processes and model an inquiry method" (Burns, 32) and offer "teachers a sophisticated and interactive program that addresses all parts of the composing process from the initial planning of a topic through the polishing of a final paper … [and provide] students with tutorial help outside of regular classroom hours" (Selfe, 174).

In retrospect, the hopes of these scholars seem sadly disappointed. Instead of using technology to transform writing instruction, we remain in a transitional stage where new technologies have been used largely to improve upon earlier teaching and learning practices. Rather than reconceptualizing writing textbooks so that they take advantage of the latest interactive technologies, we have built bigger, better, and more accessible textbooks. Rather than considering how writing instruction might take place most effectively online, we have created course management systems that present analogues of those classrooms on the Web. Our teaching and composing practices, consequently, remain firmly shaped by the legacy of the printed page.

In this talk, I will report on our efforts to develop the Writing Studio, a browser-based, database-driven composing environment that provides instruction via video, audio, and text-based materials. The Writing Studio, available for review at http://writing.colostate.edu/studio/, now supports our University's required first-year composition and informative writing assignments at the secondary level. Additional "rooms" in the studio are being developed to support an introductory writing course, two intermediate writing courses, and writing in agriculture and civil engineering. Students use the Studio by creating an account and identifying a project. Students can work on multiple projects (e.g., a research paper for a history course, a composition assignment, a short story in a creative writing class). Within each "room" in the Studio, students can obtain writing instruction through guides that provide text-based and video-based advice, animated and video demonstrations of composing processes, and annotated example texts. Using database-supported tools, students can write and save formatted text from within their browser. Students can also access custom activities, such as brainstorming, freewriting, analyzing a publication, and so on, that are saved in the database. In addition, students can access several general-purpose tools across all rooms in the Studio, including a notes tool, bibliography generator, memo pad, reading log, and to-do list.

In my talk, I will reflect on the extent to which our efforts so far have allowed us to create a successful "next generation" writing environment for student writers in composition and writing-across-the-disciplines courses. My assessment of our progress will take into account the needs of student writers, the lessons we have learned as teachers over more than two decades in technology-supported writing classrooms, and whether we have been able to move beyond the metaphorical lenses that have shaped our thinking about how to use technology to meet the needs of writers and writing teachers. I will conclude my talk by addressing the remaining challenges facing us in the development of the environment.

Perspectives on an Unbundled Learning Community

Bill Pepicello
University of Phoenix

Faculty work is traditionally classified as Teaching, Scholarship, and Service, including a variety of activities within each category, e.g., classroom instruction, course preparation, research and publication, and participation on university committees. Since the seminal work of Boyer in 1990, much of this work has been sorted by categories that legitimize various activities and outcomes by domains of scholarship and forms of documentation. Some of the most recent work in this area, notably Braxton, Luckey and Helland (2002), provides detailed inventories of faculty work that substantially extend Boyer's framework. This recent work also suggests an overall rubric for identifying a range of activities that is tantamount to describing a comprehensive set of activities that the perfect "bundled" faculty member performs as a matter of course.

An examination of this set of activities leads to the obvious conclusion that this "bundled" individual does not in fact exist. The reasons for this are several, but include notably institutional mission, the size of a given institution, the size of departments within an institution, and the strengths of individual faculty members within the institution. Any of these factors can directly affect the work of faculty and how it is prioritized, weighted, and assessed. As a result, the work of the perfect "bundled" faculty member is often accomplished haphazardly, not at all, or by part-time, marginalized constituents. This situation exists because despite the fact that the ideal bundled faculty member does not exist, we structure the relationship between faculty and institutions on this idealized model. It is neither efficient nor cost-effective.

Working from these premises, a genuine "unbundling" would signify a system of accomplishing the work of the institution through a learning community that employs a division of labor based on the size, mission, and limitations of the institution, while at the same time providing a flexible framework that can grow and change with the institution. This division of labor would capitalize on the strengths of faculty members and match these strengths to institutional needs and priorities. Such a system allows for maximizing resources in the areas that are most central to the institution, while continuing to acknowledge and address all of the areas identified by Boyer as relevant to academia. It also allows for the possibility of shifting priorities over time and for the natural consequences of institutional change.

The current system in higher education has a de facto unbundling in this regard, in that it has categories such as "research faculty," "teaching faculty," "graduate assistants," and, of course, those faculty members who are assigned to places and times that other do not want, namely "part-time faculty." In this unbundling we have also a de facto caste system that often overlooks the value added by the various stakeholders in that specific, lesser-valued tasks are assigned to particular categories of faculty. Further, the assessment of faculty work is often accomplished through a "one-size-fits-all" system that does not accommodate the true contributions of the individual faculty members. This situation, as it plays out, often ignores the key stakeholder, namely the learner.

A genuinely unbundled faculty role as adumbrated above can provide a variety of advantages. First, faculty members can contribute according to their abilities and the needs of their institution. Second, the array of activities that constitutes the life of an institution and its faculty are recognized with equal legitimacy and can be rewarded appropriately. That is, there need not be a single standard used to assess all faculty. This in turn leads to the opportunity to create a true Learning Community where the value and contributions of individual faculty members are viewed as part of a greater whole. Ultimately, both faculty and the institution have the opportunity to grow and adapt in response to both internal and external influences. The learner can become central to the academic enterprise.

Implementation of an unbundled faculty begins with a re-thinking of the parameters that define the work of the faculty. It starts from a basic premise that the work of the institution does not change, but that the way in which this work might be accomplished should involve a clear and legitimized division of labor that is not based on notions such as "full-time" and "part-time," but rather on a formal relationship that has two aspects: 1) that between the individual faculty member and an institution, and 2) that among faculty members as part of a learning community

In such a model, faculty members agree to engage in a range of activities over a specified period of time, as negotiated between the institution and the individual. This agreement is renewable at regular intervals, at which time a reassessment of activities takes place to allow for changing needs of both the institution and the faculty member. A

template of relevant activities can be developed at the institutional or departmental level and might include a number or rubrics, e.g., instruction, governance, administration, and/or scholarship. This template is then adapted according to mutually agreed-upon conditions.

In such a system, designations such as "part-time," "full-time," "research faculty," or "teaching faculty" are replaced simply by "faculty." The ongoing needs of an institution are served by this model in that agreements with faculty can be adjusted and tailored on a regular basis to address the immediate needs of the institution, as well as providing a basis for strategic planning. This model also serves faculty members in that they will know their specific responsibilities for any given contract period. Further, both the campus and the faculty members benefit from the fact that faculty strengths can be maximized to address immediate needs, while remaining flexible for the future.

This system provides the foundation for a true learning community, wherein the value of all forms of scholarship is recognized through living them. It provides a true system of shared governance where stakeholders have a voice by virtue of a structure that recognizes all relevant involved constituencies of the Learning Community. Accordingly, the assessment of faculty work can be achieved in a systematic and equitable fashion that is scaled in the same way as the templates that define the relationship between individual faculty members and the institution.

Needless to say, the structures and organization outlined above involve major culture shifts for much of higher education. Our current systems often dilute and diminish the effectiveness of some faculty, especially those categorized as "part time" or "adjunct." These individuals are often selected without authentic assessment of teaching abilities, have little or no voice in governance, and receive scant investment in terms of training and development. An unbundled, or perhaps more aptly termed "rebundled" faculty model that treats all faculty members as legitimate members of a larger community engenders loyalty, promotes highly effective instruction, and introduces an important energy into the life of an institution. In all of this, the focus and the ultimate beneficiary is the learner.

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Thinking with Material Culture through Digital Images

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This 50-minute interactive presentation will focus on interdisciplinary ideas about teaching critical thinking by using material culture and will explain how secondary education instructors can effectively engage students in critical thinking processes by using primary objects. Strategies demonstrating critical thinking skills using digital images will focus on connections between objects and values. This methodology has unique applications in a wide range of courses across the curriculum by stimulating students to think of original ideas and make connections between objects and values.

Too often what some consider the strengths of online teaching and multimedia learning platforms, really become passive learning experiences through excess chat and threaded discussion formats. This in itself does not encourage critical or original thinking in higher education courses. Critical thinking through the use of primary cultural objects supports original through processes through organization of ideas, analysis of data, and development of persuasive probabilities. This session will give educators creative strategies to teach critical thinking in the classroom supported by existing and new technology through the use of an interactive multi-media CD. This format is designed to engage the audience in interactive critical thinking activities, including (1) organization strategies, (2) analytical exercises, and (3) concept and pattern diagrams.

To discover assumptions, paradoxes, and persuasive probabilities about the connections between primary objects and values, small think-tank teams will use critical thinking strategies such as compare and contrast, cluster linking, and critical question brainstorming. Educators who teach courses that require students to think about patterns, choices, problem solving, values, and belief systems will especially find digital images of primary objects useful in small groups. Some of the critical thinking exercises will focus on identifying patterns suggested by the relationship between objects and human values by analyzing data clusters through linking concepts, causal reasoning, and inductive thinking. The relationship between objects and values yields discovery about change and continuity, paradoxes, and cultural patterns.

Objects and images from Buckminster Fuller's Dymaxion House along with an interactive database of post-World War II advertisements from popular magazines form the visual core of this teaching model. Objects from the digital database will be utilized with a focus on interdisciplinary connections and/or collective experiential values. (Images are courtesy of The Henry Ford, formerly known as The Henry Ford Museum and Greenfield Village, Dearborn, Michigan.) The intellectual substance of this presentation is predicated upon the Dymaxion House as an expression of Buckminster Fuller's technological optimism, which presented the consumer a progressive vision of the American dream in Post-World War II America. By examining both form and function of cultural objects, we discover challenges to Fuller's philosophy that "the only way to design houses was to do so according to industrial methods of machine process." We also gain insight into why Fuller's ideas still have impact on the way Americans live today as we think critically about why "nostalgia for past values and aesthetics are not allowed to interfere with the industrially produced house" (Lorance 8). Cultural beliefs and standards about the American Dream have deep heritage in everyday historical and contemporary objects.

Following the completion of critical thinking exercises, we will discuss the findings and conclusions of the think-tank teams and further application of critical thinking strategies across the curriculum. Digitally stored object images can be used creatively with appropriate technology in online courses or in the traditional classroom. The database model of primary images is based on my experience in teaching history of technology and technology and culture courses, but critical thinking strategies have wide applications in various disciplines, and present unique opportunities for new teaching and learning experiences depending on community resources.

In thinking about material culture resources in our own communities, we are confronted with interesting possibilities about how to utilize new technology to reveal both old and new ideas. By focusing on both form and function, the connection between objects and values offers interesting and lively strategies in understanding prevailing assumptions, ideas, and cultural standards.

Lorance, Loretta. "Buckminster Fuller, Dialogue with Modernism" *PART Journal of the Cuny PhD Program in Art History.* http://dsc.gc.cuny.edu/part/part7/articles/loranc.html

Implementing Active Learning in College Accounting Classes: Resistance and Persistence

Dr. Donald J. Raux, Ph.D., C.P.A., C.G.F.M.

This presentation will:

- Explain the concept of, and discuss the merits of, active learning;
- Discuss the implementation techniques that are being used in my accounting courses;
- Discuss results to date, both positive and negative;
- Invite discussion particularly focused on mitigating student resistance to active learning.

Full discussion of presentation:

This presentation is the result of an exhaustive literature review in the field of active learning and nearly eight years of practical experience in attempting to implement active learning in my classroom.

Initially, the focus will be on the learning theory of explaining the concept of student-centered instruction and why it is beneficial to student learning. Some of the merits that will be discussed include a greater emphasis on second-level learning skills, much greater retention of material learned, and students becoming better life-long learners.

It is essential that the professor provide comprehensive guidance to assist students in becoming primarily responsible for their learning experience. The presentation will demonstrate detailed implementation procedures that have been used in my accounting classes. Both the student and the professor's responsibilities in implementing active learning will be discussed. A detailed description of the pedagogy that I have developed will be outlined. There will also be a discussion of how to best create and develop a Community of Learning.

The importance of emphasizing second-level learning skills will be outlined. I will specify how and why such skills are emphasized in all my accounting classes. The second-level skills that will be discussed are critical thinking, communication skills (both oral and written), interpersonal skills, and technical and analytical skills.

The presentation will discuss specific implementation techniques for both upper and lower level classes. Additionally, I will describe specific methods used to evaluate both individual and group participation. Individual and group participation is absolutely critical in implementing active learning so evaluation of such variables is critical in order to align the evaluation with the course objectives.

The results, to date, of my innovations have been mixed. The students that have embraced the pedagogy have reported a much improved learning experience and advantages in future classes and in their careers. However, many students continue to resist taking primary responsibility for their learning, which has resulted in decreasing enrollments and an increasing drop rate.

The final portion of the presentation will be focused on the motivation theory by inviting discussion directed at how to mitigate student resistance. Attendees will be encouraged to share their own successful experiences in implementing active learning and at mitigating or overcoming student resistance to active learning.

Making Time:
Coping with Overload in the Teaching Life

Douglas Reimondo Robertson
Eastern Kentucky University

"You never find time for anything. You must make it."
Charles Buxton

This workshop builds on the presenter's new book, *Making Time, Making Change: Avoiding Overload in College Teaching* (Robertson, in press), and extends the work on intentional living from his previous book, *Self-Directed Growth* (Robertson, 1988).

Lack of time may be the single most commonly experienced problem among American faculty. It is probably fair to say that the overwhelming majority of the roughly 400,000 full time faculty in American colleges and universities feel overloaded in their teaching lives; they perceive that they do not have time to do their basic faculty duties properly; and they believe that overload goes with the job. "Making time" has become a professor's necessary alchemy in this age of increasing expectations and decreasing budgets.

Einstein once remarked, "Insanity is doing the same thing over and over again and expecting different results." A Lakota Sioux saying puts the idea in concrete terms, "When your horse is dead, the proper strategy is to dismount."

When it comes to avoiding overload, many of us sit on our dead horses kicking them in the sides over and over again, insanely, wondering why we don't get anywhere. Perhaps a pernicious norm has evolved: anyone not *complaining* about being overwhelmed is suspect. We act as if we have no choice.

However, we do have choices about how we use our time. This session focuses on making healthy and productive choices in how we use our time (especially in our teaching).

Einstein further observed, "Problems cannot be solved at the same level of awareness that created them." We need to shift our perspective on using time from *subject* (a perspective *from which* we act naively) to *object* (a perspective *on which* we act intentionally).

In this session, the tools that we use to stimulate this shift in awareness are six specific principles for avoiding overload. These six principles derive from a vintage synthesis of systems theory and research (Milgram, 1970) and focus on managing the boundaries of our teaching selves better. These principles and their application have been tested informally in the actual teaching lives of hundreds of teaching professors from colleges and universities throughout the United States. Participants will leave with concrete things that they can do immediately to *make time*.

The session extends a line of work that attempts to develop further the concept of learner-centered college teaching (Robertson, 1996, 1997, 1999a, 1999b, 2000a, 2000b, 2001, 2001-2002, 2002, 2003a, 2003b).

OBJECTIVES

Participants will explore:

- Six strategies for coping with overload
- Applications to their work as college teachers

INTENDED AUDIENCE

Anyone who provides, administers, or develops direct college or university instruction (faculty, administrators, faculty developers).

PROCESS DESIGN

The session design employs a modified Kolbian learning cycle (Kolb, 1984) that incorporates concrete experience, reflection, conceptualization, and application in a flexible manner that is appropriate to the length and context of the session.

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Right-Side Up Teaching: Essential Elements for Good Learning

Gail Rice
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Objectives:
By the end of this session, participants will be able to:

- Use discovery learning techniques to improve teaching
- Explain the difference between traditional teaching (upside-down) and right-side up teaching
- Develop strategies to turn teaching and learning right-side up
- Teach a five-minute lesson to a partner to identify effective elements of teaching
- Identify pertinent elements of learning theory and apply them to planning a teaching activity

Target Audience: All interested in flipping learning upside-down

Activities:
- Set
- Right-Side Up Learning Experience: The Teaching Games/The Box Code and The Angle Code
- Evaluating My Teaching
- Exploring Key Concepts
- Application Exercise
- Closure

The most common way to teach is to start with the Theory. We lecture our students about all of the important theoretical principles that are necessary to understand a concept. This is true whether we are talking to a learned group, a novice group, or a single individual. We usually discover little of our learners' experiences with a topic or idea before we launch into our presentation. We assume what they probably already know and we may waste a good bit of their time if we either overestimate or underestimate their understanding. After spending almost all of our allotted teaching time on the lecture, we may or may not have time to check for understanding and give the learner a chance to try to apply the material to their real lives. The typical lecture ends with our running out of time—no application, certainly no planned exercise or activity to allow for checking out the practicality of the new information.

Upside down learning, on the other hand, starts with an experience. This activity allows learners to discover their interest in, need for, or awareness of the upcoming theoretical information from a practical experience.

This experience is then followed by opportunities to discuss and look for applications to clinical practice, personal needs, or activities of living.

Finally, the instructor provides theoretical information on a need-to-know basis. Thus, the "lecture" part of the learning activity is the last, not the first, and fills in any gaps that remain after the learning experiences and applications have occurred.

Attendees will receive references and materials they can adapt to their own settings.

Effectively Incorporating Online Communication and Web-Based Material into the Traditional Business Classroom

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Technology is a *tool* to enhance effective teaching. Educators and students must know how to use such tools effectively to guide student learning and facilitate understanding. Therefore, it is necessary to prepare students and teachers for ever-changing technological advancements to ensure the desired learning outcomes.

This presentation addresses the use of web-based supplements in the traditional classroom: explaining the effective use of online resources, demonstrating successful interactive communication, and balancing online instruction with face-to-face teaching as educators transition students to a "new" instructional delivery method.

The objectives of the presentation follow:

1. To demonstrate the use of online course materials as an effective academic tool to facilitate teaching and promote learning.

2. To utilize interactive communication online that carries over into the physical classroom.

3. To discuss the responsibilities of the student and the teacher when technology is used for delivery.

4. To allow active participation of audience members to arrive at effective instructional strategies using online resources and communication.

This session will include an overview, a demonstration of a course using web-based material and online resources, and an interactive activity for attendees to be the "students."

This presentation is intended for secondary and postsecondary teachers of any discipline.

Mirror in a Mirror:
Strategies for Developing Collaborative Learning Environments

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During the Spring and Summer of 2003, a train-the-trainer program was designed to help instructors develop collaborative instructional approaches in the traditional and the on-line class environments. This program was then pilot tested with selected faculty and selected students. This presentation will present the framework for the train the trainer program and the results of the pilot test. Of significance is the presentation of the process of instructional design that went into developing the train-the–trainer program using collaborative methods.

What is a "collaborative learning environment?" This term brings with it a variety of experiences—positive and not-so-positive: (a) visions of disorganized 3rd grade classes in which children do not know who their teacher is, but parents are told that learning is somehow taking place; (b) memories of training sessions in which participants were asked to play TWISTER with strangers and told it was a way of building trust; (c) instructors who spent the whole time getting us to engage with each other in process activities and then presented us with detailed content oriented assessments; (d) courses in which there was little connection between the course title and the activities, but we always had plenty to eat, got to know each other very well and joked around a lot; (e) awful team projects in which the most controlling person became the dictator and the rest of us went along to get the grade; (f) wonderful eye opening experiences in which we could actually experience the learning taking place; (f) memories of favorite teachers/mentors, favorite classes, and favorite learning experiences in which learning involved emotional, mental, physical, and spiritual changes.

For the project at hand, the description of a "collaborative learning environment" is as follows: an environment in which the faculty member structures the learning process so that the participants engage with the course material (i.e. text, resources, articles, etc); the participants interact with one another and interact with the instructor. Within this environment, the instructor sets up the goals, objectives, and activities of the course in such a way that the participants must use the resources for the course, the relationships developed through the course and the experiences they have had in their life to achieve specific learning results. In choosing the word "collaborative," the intent is to explore the interaction between and among the students; between the students and the instructor; and between the students and the materials.

Why would we want to create a "collaborative learning environment?" The grandfathers of the adult learning theory, (i.e. Knowles, 1990; Tough, 1979) point to several critical features of adult learners: (1) they are goal oriented, ready to learn; (2) they are problem solvers—have a sense of responsibility for their own destiny; (3) they are learning oriented—curious about what they have experienced—need to know "why"; (4) they are application/activity oriented and impatient with theory—and with busy work; (5) they have many things on their mind that can distract from the learning experience—work, family, money, etc; (6) they see learning as an opportunity for personal/professional development; (7) they want to be part of a group –identity is derived from a sense of belonging to a group, profession, or occupation; (8) they have many experiences that can be shared with others to help them in their learning process—have the capability to take an active role in the learning process; (9) they learn best within in the context of relevant projects; and (10) they tend to be practical in their approach to learning—will it help me solve my immediate problem?

Thus, adults return to school to implement change in their lives and to interact with other people in that process. They also want to add to their base of knowledge. Many adults have wisdom to share, many have questions to ask, and many have fears about the educational process to overcome. Sometimes, adult learners see the learning environment as a

jungle of traps, dangers and bottomless pits in relation to their self-esteem and their potential. Instructors provide the map and serve as a guide though this perceptual morass. So there is more to the instructional process than delivering one's knowledge of a discipline. Another reason to implement a "collaborative learning environment" is that more and more in the workplace, adults are being asked to work in physical or virtual teams. They are asked to participate in projects that might be ill-defined and that might require solutions that are not found in instructional manuals. They need to learn how to use the resources of people for problem solving.

What is unique about this particular approach to "collaborative learning environments?" It is a known fact that collaborative learning efforts have been around for a long time. In the education field, "andragogy," "constructivism," "action learning," "team learning," and "group projects" are familiar terms. These all have positive and negative connotations for both the student and the instructor. Over the years the one experience that stands out in the instructional world is how annoying adults find it when professional development training is done "to" them. Faculty members, just like the students in their classroom, are adult learners and have many of the same characteristics their students display. Therefore, when designing programs for faculty development, there are several principles that need to be addressed: (1) don't make me come to a program without finding out if I need it or not; (2) don't bring in an outsider who tells me what I already know; (3) don't ignore my talents and ability to share my knowledge; (4) don't waste my time; (5) don't make me play irrelevant games or participate in simulations---make it the real thing—use my time effectively; (6) let me be responsible for what I learn; (7) make sure the training has specific goals, objectives, and results that can be measured; (8) if I am doing this for work then it needs to count.

These principles were used to (a) gather ideas from the faculty about what approaches they used to engage students in the learning process; (b) gather ideas from the students to have them provide their experiences with these processes – and provide feedback on what worked and what didn't work; (c) structure a learning process that was interactive in it's implementation and which enabled the participants to construct a variety of strategies that they could use in their own classroom efforts; and (d) incorporate the ideas of the faculty and the students into a resource book, developed from their ideas, and crediting them as well.

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The Effectiveness of Cooperative Learning as an Instructional Strategy to Increase Biological Literacy and Academic Achievement in a Large, Non-majors College Biology Class

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Cooperative learning may be defined as an active learning strategy in which students work together to create their knowledge interdependently to maximize their own and each other's learning (Aronson, Blaney, Stephens, Sikes, & Snapp, 1978; Johnson & Johnson, 1978; Kagan, 1988; Sharan & Sharan, 1976; Slavin, 1977). Six non-major's biology lecture classes (N=349) at a moderate sized southern university in the Fall 2002 semester participated in the study. One lecture class integrated daily cooperative group learning strategies throughout the semester through formal, academic, heterogeneously-arranged cooperative teams; the other five classes were a continuum of direct lecture instructional practices.

The data collected to ascertain biological literacy was obtained using the Biology Self-Efficacy Scale (BSES) and the Texas high school Biology-End-of-Course Exam (BECE, Spring 2001) administered in a pre- and posttest design. The data on student achievement was determined by the final course grade as reported by the lecture instructor. Differential means were analyzed with a One-Way ANOVA. Comparing the cooperative with the direct lecture classes, there was a significant difference between the differential means of BSES Factor 3, application of biological concepts (F (5,343) = 3.737, $p < .01$), and BECE overall knowledge (F (5,343) = 12.455, $p < .0005$). There was no significant difference between BSES Factor 1, methods of biology (F (5,343) =1.953, $p > .05$), and Factor 2, generalization to other sciences (F (5,343) = 3.351, $p < .01$), or BECE process (F (5,343) = 1.071, $p > .05$) and content (F (5,343) = 1.156, $p > .05$) questions. There was no significant difference in academic achievement (F (5,343) = 1.592, $p > .05$). Although the cooperative lecture class reported greater confidence in applying biology to other areas and overall biology knowledge, this study's results were not consistent with primary through postsecondary research on cooperative learning outcomes. This suggests the need for more study related to cooperative learning, biological literacy, and academic achievement in postsecondary biology courses.

Preaching to the Choir: Mentoring a Faculty Writing (Professional Development) Program

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Audience:

Anyone interested in stimulating the professional development of faculty and the development of mentors to assist in the professional development of those faculty. This can apply to graduate students and undergraduate researchers.

Objectives:

Participants will be able to establish a mentor program.
Participants will improve the publication success rates of the target audience.
Participants will provide a service to their organization.
Participant will take away a process that works.

Discussion:

In every university it is important to write, to present and to publish. There are sectors of each university that need help getting the professional development program running and to provide assistance to tenure-stream faculty as they seek tenure. There are a lot of ways to be successful in developing a faculty writing, or professional development program, but without mentors it is not easy.

This session will concentrate on ways to get mentors involved with new faculty, ways to foster the creative energy of all faculty, and teach a method for writing papers that eases the concern most people have when it is time to write. These methods have been very successful at a university where professional development was in trouble and is now flourishing.

The same methods can be used with graduate students and undergraduate researchers in developing their final product, senior projects, and senior thesis. While the members of ISETL are accomplished presenters there is always a need to pass on the skills found within this community.

Activities:

After a brief presentation, groups will select paper topics and in a few minutes, each group will develop the paper in a creative manner, as they would with a new faculty member. Follow-on discussions on developing the mentor relationship, process and culture within departments and schools will provide the tools for implementation at home institutions.

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Why Do I Teach?

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"Why do you teach?" A simple enough question, but an incredibly challenging one to answer.

At the 2002 Lilly Conference on College Teaching I was fortunate to meet Peter Beidler, the Lucy G. Moses Distinguished Professor of English at Lehigh University and the Carnegie Foundation for the Advancement of Teaching 1983 U.S. Professor of the Year. As a result of that award, the editors of *Alumni Magazine* invited him to write a short essay, which they published as "Why Do I Teach?"

In Beidler's essay, he writes about lifelong learning through teaching, innovative teaching methods, and how teaching is rewarded continuously as former students go on to do good and useful things. Yes, teaching does indeed provide us with, as Beidler says, "… many nectars to taste, many books to read, and many ivory and real-world towers to discover. Teaching gives (me) pace and variety and challenge and the opportunity to keep on learning."

Like Peter Beidler, I teach for all of those reasons – but those are not the most important reasons why I teach!

A few years ago I met a fellow teacher on-line and we became good cyber-friends. I invited him to attend and make a presentation at an ISETA conference. Upon meeting him in person, our initial exchange of pleasantries took the usual academic spin. In short order I asked him, "What do you teach?" His answer – "Students!" As one of his musings so eloquently puts is, "If you want to be a teacher, you have to fall in love each day. If you want to be a teacher, you have to put aside your formal theories, intellectual constructs, axioms, statistics, and charts when you reach out to touch that miracle, called the individual human being."

Parker Palmer, in his classic *The Courage to Teach* (1998), postulates, "If we want to improve the quality of college teaching, a million workshops on methodology will not be enough. Good teaching does not come from technique. It comes from the identity and integrity of the teacher."

In his more recent work, *Let Your Life Speak: Listening for the Voice of Vocation* (2000), Palmer builds on his theme of personal integrity. He urges each of us to find our life's true calling by listen to our inner voice, our inner teacher if you will, and follow its teachings to a sense of meaning and purpose. He posits that "every journey, honestly undertaken, stands a chance of taking us toward the place where our deep gladness meets the world's deep need." Indeed, Palmer feels that cultivating that truth is the authentic vocation of every human being.

Students are the real reasons I teach, students who grow and change in front of my eyes. As Pete Beidler puts it, "Being a teacher is being present at creation, when the clay begins to breathe. Nothing is more exciting than being nearby when the breathing starts."

Good teaching offers love. Not only the love of learning and of books and of ideas, but also "… the love that a teacher feels for that real student who walks into a teacher's life, begins to breathe, and then walks out." As Beidler says, "I teach because, being around people who are beginning to breathe, I occasionally find myself, quite magically, catching my breath with them."

In this interactive workshop, appropriate for all who believe in the spiritual nature of the teaching profession and the presence of their own inner teacher, I invite each of you to join me by reflecting on your own path and sharing your thoughts on why you teach? May our paths cross as we meet each other along The Way, and may our students ultimately gain as we discover our authentic selves and what it means to be a teacher.

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Preparing Future Teachers to Use Technology

Integrating technology into the training of students in teacher preparation programs continues to be an important issue. This becomes obvious upon entering most schools when it immediately becomes apparent that technology remains unavailable or unused in most classrooms. Although computers are common in schools, not all preservice teachers recognize the value of using computers since they seldom see computer use in classrooms (Smithey & Hough, 1999). In order for technology to become an integral part of the educational experience, technology must be central to the teacher preparation experience (Queitzsch, 1997; Wilkerson, 2003). Further emphasizing this point, in September 2000, the National Commission on Mathematics and Science Teaching for the 21st Century presented its report entitled *Before It's Too Late* (U. S. Department of Education) which stated that teacher preparation programs must provide a deep understanding of content through use of technology. The National Council of Accreditation of Teacher Education (NCATE) developed standards that include a commitment to technology by requiring that teacher candidates have a knowledge and skill base developed throughout their program related to integrating educational and informational technology in all areas of teaching and learning. Despite these and other initiatives, many teacher preparation programs do not provide their candidates with sufficient experiences to prepare them to use technology effectively in their classrooms (Moursund & Bielfeldt, 1999).

As point out, Real change in teaching and learning may be achieved with technology, but our environments are complex and teacher belief systems influence classroom practice in significant ways (Persichitte, Caffarella and Ferguson-Pabst, 2003). Like teacher candidates, university faculty teach the way they were taught, and the cycle continues. For many who work with prospective teachers, integrating technology into courses is a daunting task for several reasons. Although the research clearly indicates that faculty need to be role models for students (Barker, 1993) and explore ways to prepare preservice teachers to use technology effectively (Clark, Martin & Hall, 2000), many university faculty have little experience with technology use in the classroom. Most institutions are struggling to obtain equipment, software and training for faculty, who are often clamoring for help. Even with state of the art software and equipment and the training to use it, many faculty remain concerned that students will witness their struggles with technology and lack the confidence to attempt to use technology effectively for instruction.

There are ways, however, to integrate technology into a college course relatively easily. Two strategies, online discussions and student PowerPoint presentations, are relatively simple techniques that may be implemented in any college course without extensive training and background in technology. Each of the strategies may be incorporated as course requirements and be made available along with other components of the course online at a basic course website through WebCT. Development of a course website is not essential, however, since the online discussion may take place through email and the PowerPoint presentation may be included as a requirement in the traditional course syllabus.

1. **Online Discussion**: Every two weeks, students review and evaluate a website provided by the instructor that is related to the course content. Students' reaction to the website is shared with classmates and the instructor each week in an online discussion that is completed outside of class. *(In order to participate in the online discussion, students are placed in groups of four. Students review the website and discuss their reactions to it with their peers in the group. Their participation and comments are graded through the use of a rubric, which is provided to them in advance. This component of the course accounts for a percentage of their grade.)*
2. **PowerPoint Summary**: Each student prepares a PowerPoint summary of a chapter in the text and presents it to the class. This assignment is graded using a rubric provided in advance.

Most students today are comfortable with using computers for word processing and email, but some may not have participated in a course in which technology was a significant component. Students may express anxiety about their computer skills during the first class., but with some reassurance and review of basic skills, students will quickly become comfortable enough to participate in technology related tasks and benefit from the course structure. A week-by-week listing of course assignments and topics enabled students to easily keep track of their responsibilities and performance.

Both strategies provide distinct advantages for instructors and students. For instructors, the online discussion feature extends and enhances the classroom experience and provides students with an opportunity to thoughtfully reflect on course content with their peers and instructor. By discussing some course content online, classroom time can be used in

other important ways. For students, the discussions provide those who are reluctant to participate in classroom discussions with an opportunity to participate in what may be a more comfortable environment for them. Those reluctant to participate in class are sometimes enthusiastic participants in online discussions.

Students' PowerPoint presentations provide the instructor with insight about what students consider to be important information as well as what students may not understand about material they read. Misunderstandings can then be corrected immediately. The instructor can also be assured that each student has read and worked with at least one chapter in the textbook. For students, summarizing and organizing information is an important task that is required for this assignment. One learns course content by teaching it and students master the material they present.

At the end of the course, students were asked to react to the online discussion and the other technology related components of the course. The response was positive, even from those students who had expressed the most apprehension initially. Some students did not have Internet access or PowerPoint software at home and had to complete all assignments in the college computer lab. Despite their apprehension and the inconvenience of the technology aspect of the course for some, all students reported use of all features of the course and an enriched experience. Some of their comments indicated that the technology aspect of the course convinced them to rethink their views about teaching and learning, " This was the first opportunity I have had to take part in online discussions with my classmates. This was a new and exciting way to learn what could be very difficult material. I am convinced that including technology in the classroom is something that is very necessary." Another student reported, "All in all, I do believe it (the technology component) helped me be more involved in what the class had to offer." When asked for recommendations to improve the course, two specific recommendations were offered. First, students reported that having copies of the PowerPoint presentations of their peers would have been helpful since students would then have an outline of every chapter of the textbook that had been covered during the course. If providing a handout to students is not possible, students could submit their presentations to the instructor for online posting on the course website which is accessible to all students enrolled in the course. Additionally, some students recommended that they be provided with a discussion question to provide focus for their online discussion. Other students disagreed, and enjoyed the free flow of discussion in the online format. All agreed that two weeks was an appropriate time limit for the online discussion and that a shorter or longer period of time would present difficulties for students.

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Multiple Perspectives: Why should we care about your two cents?

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Constructivism has as one goal the construction of plausible interpretations of events though collaboration. Plausible implies the entertainment of different interpretations or alternative perspectives because one cannot presume there is only one correct interpretation or perspective (Cunningham, 1987).

The ability to comprehend multiple perspectives gives students the diversity to construct situation specific understandings. Social negotiation provides the measure for usability. With usability as the goal, students with a wide repertoire of understanding can apply methods that best fit the situation. These constructed understandings, as well as their use, fluctuate just as social negotiation of viable views change with new information.

Educators emphasize the construction of multiple perspectives by encouraging students to view an issue from different vantage points. A well supported, sincere understanding of each perspective is encouraged. Students should note the advantages and disadvantages of the various views and ultimately adopt the most relevant and useful perspective for a particular scenario.

Collaboration exists as a tool for the development of multiple perspectives. Collaboration for this purpose goes beyond sharing and consensus building, however. Constructivism advocates researching and assessing the evidence for a particular viewpoint. The gathering of evidence and development of arguments exists as a cooperative effort with group members assisting each other in their understanding of the various perspectives.

The use of examples is an important strategy for acquiring multiple perspectives. In many curricula the use of examples and non-examples prevails as a method to assist in understanding. As opposed to these clear-cut examples, slice-of –life examples are preferred by the constructivist educator. For example, Instead of showing the correct manner in which to *teach* through decontextualized positive and negative clips, students watch an entire lesson being taught. Assessment of the various methods utilized follows, accompanied by a discussion concerning the positive and negative aspects of each method and how they might be appropriate or inappropriate in certain situations. Teaching, in this case, is authentically in context. Students have viewed the concept during actual instruction as opposed to witnessing it divorced from its real world setting. Developing and evaluating alternative views in authentic situations is the goal.

Objective: Attendees will apply the concept of multiple perspectives to their current curriculum or discipline using constructive theory.

Audience: This session is suitable for any participant who desires to employ problem solving in their course in an authentic constructivist manner.

Format:
1) Prior knowledge regarding problem solving and collaborative techniques will initially be assessed.
2) A brief explanation of the constructivist philosophy regarding multiple perspectives will follow.
3) Participants will design authentic opportunities for their students to understand multiple perspectives resulting in increased understanding, tolerance and problem solving ability.

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FOCUS! Teaching Strategies to Help First-Year Students Hone In and Hunker Down

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Objectives:

1. Present a brief overview of the CU-Colorado Springs Freshman Seminar Program.
2. Introduce hands-on exercises for the first-year classroom, many of which may be easily adapted to first-year courses across disciplines.
3. Address Dweck's works on self-theories and intelligence and specific teaching strategies to motivate today's first-year students.
4. Provide handouts with practical materials for participants to use in their own classrooms or in faculty training programs aimed at enhancing first-year teaching at their home institutions.

Target Audience: This session will be useful to faculty who *teach introductory courses to first-year students in any discipline* or to faculty who *lead or plan to initiate a First-Year Seminar* on their own campus.

Activities: In this interactive session, attendees will participate in a series of exercises (such as "The Ideal Student," "Follow the Lecturer," "Project Based Learning," "A Quote for All Reasons," and "Visible Quiz") from the author's experience, research, publications, and national workshops.

Introduction and Background Information: The University of Colorado at Colorado Springs has experienced rapid and continuing success with its Freshman Seminar Program, which originated as a single pilot section of 16 students twelve years ago (five percent of new freshmen during Fall, 1991) and now serves 550 students (50 percent of the entering class). The success of this multi-disciplinary, three-credit, academic course is due to the commitment of a core of 34 talented faculty from 25 different units across five colleges who motivate, engage, and support first-year students in the classroom. Each May the faculty attend a three-day professional development retreat off-site, during which time they learn new teaching technologies, innovative classroom exercises, and specific strategies for working with today's freshmen. One of the distinct benefits of the Program—now reputed to be one of the best in the country—is the extent to which faculty report importing these teaching strategies into their discipline-based courses and the extent to which the Program has helped to change the culture of the campus.

Each Freshman Seminar class is organized around one of seven broad and appealing content areas (for Fall 2003: "Crime and Punishment," "ColoradoLiving.com," "Unreality," "The Mating Game," "Life and Death," "The American Dream," and "Street Beat," and "Incredible Shrinking Universe"). Each course is designed and taught by interdisciplinary faculty teams of assistant, associate, and full professors, staff co-instructors, and Junior Teaching Assistants (JTAs) who have completed Freshman Seminar previously and enroll concurrently in a tuition-paid, three-credit, upper division course on teaching and learning. Freshman Seminar students spend one-half of their in-class time in small groups of fifteen with their individual instructor(s). The other half of each three-hour class consists of common time with all other students enrolled in the content area as the group listens to engaging presentations from on-campus or outside experts who approach the course topic from their own specific disciplinary vantage point. While focusing on their chosen compelling topic, students develop their skills in *speaking*, *writing*, *teamwork*, and *technology*; are introduced to the fundamentals of various disciplines; and work closely with faculty, academically successful peer mentors, and fellow students. The Program emphasizes faculty coaching, collaborative learning, technology applications, college success strategies, and campus skills centers through a variety of creative assignments. Freshman Seminar meets two full days before other classes begin during "Preview Daze" and consequently ends five weeks early.

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Service-Learning in the Sciences

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Service learning is the pedagogy of having students learn course content and meet course objectives while providing a service to their community. At Colorado State University, we have developed a program integrating service learning into our microbiology classes. Students enrolled in these classes perform service learning by providing educational opportunities to K-12 schools in the Larimer county school district. The CSU students benefit from the experience, because they learn how to apply the concepts they have learned in class, which increases their understanding of microbiology, improves their verbal and written communication skills, and helps them gain an appreciation for the role they play as scientists in the community.

In the General Microbiology classes, CSU students teach basic hygiene and hand washing to students at local elementary schools. Students work in groups of three to develop the curriculum for this project, which they present to first-grade students. During the semester, the CSU students try different educational strategies, and discuss the merits and flaws of each at weekly meetings. CSU students participating in this project say they learned far more about hygiene, particularly in children, as well as the prevalence of microbes in the environment, than they did from simply attending lecture.

In Medical Microbiology Lab, undergraduate CSU students use the knowledge and skills gained in class to introduce visiting high school students to the basic techniques used to identify pathogenic bacteria. The undergraduate students write case histories about various pathogens, and then create simple flow-charts and set-up several biochemical tests for the identification of the pathogen. This is an interactive exercise, in which the visiting students learn about different diseases and go through the process required to identify the bacteria that cause them.

This year, we are proposing a new capstone service learning class for junior and senior CSU microbiology majors. CSU students enrolled in this class will participate in the "hand-washing" project presented to elementary schools. They will also create and present hands-on, interactive activities to teach basic microbiological concepts to junior high, middle, and high school students visiting the department.

The service learning component in all of these classes provides CSU undergraduate microbiology students the opportunity to hone their skills and increase their knowledge by teaching microbiology to people whose background in science is less extensive than their own. The public school students benefit, not only by learning about bacteria and diseases, but also from their interaction with college students and the brief exposure they receive to college coursework and facilities.

This presentation should be of interest to teachers who want to learn about service learning, or need ideas for integrating service learning into their classes. Although this presentation should be relevant for all instructors, it may be especially valuable for science teachers. Integrating "social science" into "hard" science classes presents special challenges. This presentation will provide specific examples of how it can be done successfully.

Linear Teaching Formulas: Fifteen Steps to Learning Success

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This interdisciplinary teaching strategy introduces participants to a novel concept by following a sequential teaching formula. As a specific principle, or rule is posed and then followed by a series of examples and non-examples, participants actively create and discriminate between accurate concept representations. This fifteen step instructional formula is a highly interactive teaching tool that promotes active engagement, cooperative learning, knowledge application, and development of discrimination skills.

Workshop Objectives:

1. Participants will develop a fifteen step teaching formula that is relevant for individual classroom and discipline use.

2. Participants will gain an understanding of the constructivistic and behavioral components involved in the development of a linear teaching formula.

3. Participants will examine the individual components that facilitate the development of a fifteen step teaching formula.

4. Participants will engage in cooperative group exercises that enable them to experience the dynamic components of a linear teaching formula.

5. Participants will discuss the advantages and disadvantages of utilizing a linear teaching formula within diverse classroom environments.

6. Participants will examine relevant research that addresses the use and evaluation of linear teaching formulas.

This session will open with the introduction of an "unfamiliar concept" that will engage the *large group* in a sequential learning process. The large group will then be separated into smaller, cooperative, *break out groups* that will be given individual concepts to develop and then deliver (*teach) to the larger group*. At the conclusion of the session, the presenter will assist participants through guided direction in the construction *of individual, content specific sequential* instructional designs. Participants will leave the session with a *fifteen step instructional plan* that is ready for immediate implementation. Each participant will be given a handout that lists the prescribed linear teaching method for future lesson creations.

Outline of Activities:

I. Introduction to the fifteen step teaching formula
    A. Goals of the teaching formula
    B. Theoretical components of the teaching formula
II. Demonstration of the teaching formula (with entire group)
III. Components of the formula (Flow chart)
    A. Concept Definition (Dimensions)

B. Use of Examples
C. Range
D. Minimal Differences
E. Non-examples
F. Teaching Statements
G. Question Statements
H. Testing Outcomes

IV. Small group concept development activity (break-out into cooperative learning groups)
V. Small group teach activity
VII. Development of individual, content specific, instructional designs

Target Audience:

This session is designed with the intent to target an array of participants from various academic and professional disciplines. It is especially attractive to those participants who wish to incorporate cooperative and collaborative learning strategies into their classrooms. The use of a linear teaching formula transcends specific content boundaries, as its broad components are specifically designed for individual adaptation to specific content areas and academic disciplines. Therefore, diversity in discipline and profession is actually an invited component for this session.

7-Up Plus 1:
Engaging Students Through Course Enhancement

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Background and Rationale

This session is a very shortened version of a Seven-Step Course Enhancement Seminar Series offered at our college in the Center for Instructional Development. The seminars encourage faculty to examine a current (or new) course to see if it is structured in a way that is optimally engaging the students to learn the content and/or skill taught in the course. That's where 7-UP comes in. The PLUS 1 refers to the eighth seminar in which the faculty member evaluates the changes he/she has made to the course and determines their effectiveness. The topics for the session range from "Why have outcomes?" to "Planning Assessments" to "Using Technology Effectively." Unfortunately for an atmosphere of learning, one of the principles of design inertia states "Any change looks terrible at first." After a faculty member has taught a course semester after semester, a false sense of complacency can set in. To be an effective instructor, however, we have to look beyond the "at first" reactions and be willing to consider and implement changes in our courses. Doing so takes time and energy to revise tried and true methods.

Intended Audience

Attendees at this session need to have the desire and the "guts" to perhaps even start over in designing a course that he/she teaches. And the impetus for the changes should be based on increasing student engagement in the learning process.

Objectives

Attendees at this session should leave with new ideas for

- Structuring a course around course goals and objectives
- Applying Active Learning Strategies based on student learning styles and instructor teaching styles
- Developing formative assessments to provide feedback to students
- Structuring class time for optimum student engagement
- Delivering content with the aid of technology tools
- Planning for an online course environment
- Evaluating a course

Workshop Outline of Activities for Session Participants

After a brief introduction to the relationships between student engagement and course enhancement, the participants will be divided into seven groups.

For about fifteen minutes, each group will participate in a unique activity that is related to one of the topics covered in the seven seminars. Each group, then, will be "participating" in a different seminar. After this group activity, participants will receive a handout listing the seven different group activities, and each group will share with the rest of the participants what they did and how it fits into the seven steps of course enhancement.

After the group "sharing," participants will be given another handout which summaries the key parts of each seminar in the seven part series so that they can see the "big picture." Participants will be encouraged to return to their own campuses to implement what they have learned today either by offering a similar faculty development program on their campuses or by independently doing their own course enhancement based on our seven seminars.

"Teaching the Gilded Age and Progressive Era (or any other period) with Political Cartoons: An Interactive and Systematic Approach to Primary Source Analysis-- for High School and College Students"

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In America's history, the Gilded Age and Progressive Era, roughly the last third of the nineteenth century and first two decades of the twentieth, constitute one of the most formative and complex of periods, a time that historians designate as the birth of the modem United States. Many high school students and undergraduates find this period, as they do other discreet blocks of historical time, hard to grasp, frustrating to analyze. Part of their difficulty is some of the baggage they bring to their classes, including the surprisingly enduring myth that history is, more or less, "one damn fact after another." Many eventually abandon that myth, but not without concerted effort and the opportunity to "do" history, that is, to become historical detectives. The more committed students also recognize that they must adopt a mindset that accepts the past as a multifaceted storehouse of wisdom and folly. Real learning begins only after they start to appreciate the importance of understanding the past on its own terms and being able to explain how and why historical figures, ideas, issues, and events interact, and that through historical detection students can actually glean meaningful patterns of human behavior and motivation from the apparent cacophony of historical instances.

Americans in the late nineteenth century witnessed continual and profound interaction between the major forces that shaped it. Industrialization, urbanization, immigration, war, partisan politics, corruption high and low, explosive changes in class, race and gender relations, and the presence of reformers galore seem to gridlock the historical landscape and defy a clear vision of the whole. As one of my students lamented, "There's too much going on. How do you expect us to sort it all out and make sense of it?" I share her frustration. Improving ways to help students learn how to "do" history, how to sift through the tangle of historical evidence in a way that is both methodologically sound and viscerally (yes, viscerally) satisfying has been one of my recurring pedagogical dreams.

During the past few years, I have tried to do it with political cartoons, all of which reflect in a variety of significant ways the period in which their artists created them. The late nineteenth and early twentieth centuries in the United States were the golden age of the political cartoon. Masters such as Thomas Nast, Joseph Keppler, Bernard Gillam and James Opper lithographed the media landscape with superbly rendered cartoons that exposed the foibles and follies of their era. Rich with symbolism and brimming with telling detail and incisive comment, their artwork attracted the sustained attention of hundreds of thousands of eager news seekers. Cartoons are a medium that can provide students of the twenty-first century with a memorable, meaningful, and engaging gateway into the world of their forbearers. They also afford a potentially exciting way to teach both history content and analysis.
The use of political cartoons in textbooks and in the classroom is not new, of course. For many years these portraits from and of the past, including Ben Franklin's famous 1754 cartoon, "Join or Die," showing a severed snake ready to reassemble into a powerful revolutionary force, have helped many history professors and publishers illustrate official, popular, or dissenting opinions. I have designed a course, however, whose methodology is not only adaptable for use at either the high school or college level, and which utilizes political cartoons not for mere illustration, but as primary sources subject to much of the same types of critical analyses applied to conventional print sources. The goal of my methodology is to systematically employ political cartoons to facilitate the development of students' ability to formulate and address historical questions, make inferences and formulate hypotheses and theses, examine evidence, identify and explain bias, and learn the art of corroboration. Cartoons used for these purposes engender student enthusiasm for history in a way that other types of documentary evidence, especially print sources, do not often do. At the same time, the use of visual evidence does not relegate the more conventional sources to the dustbin or in any way to compromise their value as windows to the past. Rather, an in depth experience with political cartoons may serve as a tantalizing introduction to the entire range of rich documentation that constitutes the raw legacy of earlier times.

By focusing on cartoons as an important category of documentary evidence, students can facilitate the development of many of the same kinds of critical thinking skills that the study of other types of primary source materials makes possible. Most students quickly realize that analyzing a cartoon only begins with a hunch, and that they must apply the same kind of sustained analysis that they would bring to other historical sources such as newspapers, speeches, diaries,

letters, legislative acts or court decisions. Whether students are analyzing one cartoon or a series of cartoons on a specific topic such as an election campaign or a reform movement, they must identify the thesis and supporting arguments; understand the author's frame of reference and biases; know something of the event or events that precipitated the cartoon; compare its message, that is, its thesis, with that of other contemporary sources; and evaluate the cartoon's intent, reliability, accuracy, and usefulness as an historical insight.

One of the many bonuses of using cartoons in this manner is hearing students express the pleasure they derive from learning about the nature and nuances of satire and parody, and from understanding how symbolic imagery, stories from ages past, folklore, and contemporary popular culture can enrich a cartoon, bolster its message, and help sustain public interest. More important, students learn to better appreciate the complexity of history, and delight in their development as historical detectives who can, after all, "sort it all out and make sense of it." Working with political cartoons will provide your students, as they have mine, with an experience that is both unique and intellectual engaging, not to mention viscerally satisfying. There is simply nothing else like it.

Teaching such a course has been a gratifying experience and as such, is something I believe will be of interest to other classroom teachers. My presentation will be, in effect, a mini-course in cartoon analysis, and will include two detailed handouts, one a model for use in the session, the other a more detailed teaching guide. Those attending will have the opportunity of participating in an analysis of one or more classic cartoons from late 19th century. Color cartoon transparencies projected on a large screen will facilitate the presentation. I will also provide information on accessing political cartoons, the mechanics of using them in a class setting, and a short bibliography that includes my relevant published work as well as other print and internet sources of information.

Study Abroad and the International Internship: A World-Class Experience

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Objectives:

The objectives of this presentation are to share the excitement, growth, and experiences of students that participate in successful study abroad programs and internship programs. The logistics, content, and timeliness of the various programs will be presented and discussed. The presentation will provide insight into no less than six different programs.

Format:

This session is designed to share an overview of a very successful study abroad program with a primary focus on the international internship program. The session will provide insights into the mechanics of the international internship program and it will share experiences, student comments, and other related information that would prove useful in implementing or improving their international experience.

Target Audience:

This presentation will be useful and appropriate for higher education faculty, staff and administrators, international program facilitators and educators interested in adding an international element to their curriculum.

Introduction:

Globalization! International competition! World-class! World-community! Diversity! These are all very powerful words we are hearing every day. Today's student's education is enhanced when it includes an international element. With the movement to a more complex global business, a greater understanding of the diversity and challenges presented by different cultures, nationalities, governments, businesses and organizational structures are needed. Research by Gray, Murdock, and Stebbins (2002) found study abroad programs have in recent years become increasingly legitimized as forms of experiential learning. Over 560 undergraduate students, graduate students and faculty members receive an introduction to the true global community through Purdue University's International Programs, the Study Abroad Programs and the International Internship Programs. These types of programs have increasingly become popular. The internship provides a unique international business experience while the study abroad programs provide insights into travel, education and culture.

The Study Abroad Programs

Want to experience Oxford, England; Florence, Italy; Prague, Czech Republic; London, England; Glasgow, Scotland; Dublin, Ireland and other international sites? Welcome to the Summer Study Abroad Program. The opportunities are vast and the potential is enormous.

The Purdue University Summer Study Abroad Program normally takes place on the campus of a hosting university. In Glasgow, it is the University of Stathclyde. In Oxford, it is the Oriel College; in Florence the program is housed in the Palazzo Galli-Tassi Palace; and in Prague, it is with Charles University. The Study Abroad Program offers the student up to six credit hours of instruction during the four to five week study period, with instruction being delivered by award winning faculty from Purdue University and the host university. All of the programs offer weekly excursions to other urban, historical, political, or cultural sites enhancing the educational experience. The instruction occurs during three days of the week, normally Monday, Tuesday, and Thursday with the excursion normally occurring on Wednesday. This schedule provides a three-day weekend, thus allowing the student to travel, relax, or explore areas of interest – and maybe even find time to study and do some homework.

The Internship Program

The London internship offers the student a unique learning experience that integrates formal academic preparation and the experience of work in a different culture. As a result, professional values, attitudes, experiences and skills are refined and enhanced. Students participating in the London Internship Program have worked with the Tower of London, The Royal Automobile Club, Royal Bank of Scotland, London Knights, Pringle of Scotland and many others.

The London Internship Program combines a three-credit hour unpaid internship with a three-credit hour academic course over a six-week period of time. The internship is unpaid due to the inability of getting a work visa; however, the student receives three credit hours for the experience gained through the internship. The student may also elect to work an additional two weeks, working full-time; thus providing a more complete work experience. The London program is designed to allow students to study and to work in an international setting while developing an appreciation for British culture.

Students from different schools participate. For example, students in Liberal Arts may have internships in communication, English, history, political science, psychology, sociology, anthropology, visual and performing arts, art design, and theater. Students in Management may work in various businesses such as economics, accounting and finance and in business strategy. Students in Technology may work in industrial technology, computer, computer graphics, aviation technology, human resource management or organizational leadership. Students in Consumer and Family Sciences may internship in the hospitality and tourism management, child development, consumer sciences, retail management, sales, family studies, and fashion design.

The internship program offers a wide array of possibilities. For example, one may be with Cameo Productions for advertising experience, The Royal Automobile Club for event planning experience, *USA Today Europe* for journalism experience, Labour Party for political science experience, or Pringle Scotland for retail management experience. The possibilities are endless. Several students are invited to stay on for the remainder of the summer to continue their work and are now offered a salary, expenses, and housing. Many students will be offered the opportunity for full time employment and are invited to return once they have graduated.

Summary

According to Citron and Kline (2001), when study abroad programs employ experiences that carefully match the participant's needs, goals, and expectations, the results can be life changing. The growth in self-confidence, understanding of different cultures, and communications has been phenomenal. Students learn so much about life in such a short period of time and many are given new and exciting opportunities as a result of the experience. For example, one business student auditing billing for a company found billing errors that resulted in the company being able to save over $250,000. She was invited to stay for the rest of the summer and offered full time employment when she graduates. Another student was offered the opportunity to model for Vidal Sassoon. She did two shows and was hired to stay for additional weeks to do another three shows. Rachel Humphry, a student in the 2003 London Internship program sums up the program and the experience. She notes, "This experience will change me forever. Everyone should do this!" Students have marched in parades and met members of the Royal family. Students working in social agencies have made positive differences in the lives of youth, bridged the gap between cultures and on and on the stories go. This session will explore the possibilities, the excitement and the mechanics to make the international experience possible.

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Employed Undergraduate Teaching Assistants as a Resource in Teaching Introductory Psychology

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Because it is cost effective, many Freshman/Sophomore college courses in introductory psychology and other disciplines are offered in large lecture halls with hundreds of students. Some students are intimidated by the very size and atmosphere created by this primarily lecture pedagogy. One way of reducing the anonymity of large classes is to make available to students the opportunity to enroll in small group discussion sections. These small groups are conducted by outstanding Junior/Senior students interested in acquiring teaching experience as undergraduates. Many of these Junior/Seniors are headed for graduate/professional schools upon graduation and use this opportunity to enhance their application and to quality for Graduate Teaching Assistantships. This program has been offered at Colorado State University for over 20 years and has contributed in important ways to undergraduate teaching and learning as measured by student evaluations.

I will moderate this session with a panel of five students.

Developing Information Literacy Skills in a Writing-Intensive Setting:
Do I-Search Papers and Annotated Bibliographies work?

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Librarians at York College of Pennsylvania have been teaching a 2-credit core curriculum course in Information Literacy (IFL 101) since Fall of 1997. We started by focusing on information literacy skills, but a number of us became increasingly troubled by the difficulties students exhibited in writing. We decided to re-approach our syllabus via semester long, writing-intensive projects. Two approaches are contrasted: a learner-centered I-Search Paper and a more traditional Annotated Bibliography.

The annotated bibliography is a time-honored traditional research assignment. It is a good way for students to explore resources in a particular subject. Students gain good experience in summarizing and evaluating disparate sources. Unfortunately, the annotated bibliography has several notable weaknesses. The fragmented nature of the bibliography makes it very difficult for students to integrate and synthesize the information they gather. They also perceive little value in the process itself.

The I-Search Paper, loosely based on the Ken Macrorie's* model, focuses on the research process, rather than the research result. Students write about their personal attempts to find answers to important questions. Since the I-Search Paper focuses on students' genuine information needs, it avoids the sense of artificiality that often plagues more traditional research projects. In writing about their experiences in finding answers, students begin to develop their own voice. They also begin to reflect on the effectiveness of their personal research habits. Students typically remain more focused on their research questions and do a better job of synthesizing what they've learned.

Teachers benefit from the process too! Since students choose topics that matter to them, it allows instructors to engage students on their own ground. Instructors often gain startling insights into the research habits of students. By participating in the process, rather than passively receiving an end result, teachers have the opportunity to intervene in misguided efforts early on.

The clear success of the student-centered I-Search Paper has significant implications for teachers developing future research projects. When students become emotionally invested in their topics, more meaningful learning transpires for both students and instructors.

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From Group Grope to Group Growth: Utilizing Learning Styles Theory to Increase the Effectiveness of Cooperative Learning in the University Classroom

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Objectives: *To provide an opportunity for the participants to:*

- Better understand themselves and their students as learners
- Become familiar with how learning style impacts the instructional decisions that are made
- Review models of learning style responsive cooperative strategies
- Develop cooperative teaching/learning strategies that benefit students

Intended Audience: University faculty, department chairpersons, professional development personnel

Description of Session:

Activities:

- Brief interactive PowerPoint presentation that provides an overview of learning styles theory and its potential impact on cooperative learning. Included are clips from the media that illustrate the diverse styles that pose a challenge when faculty want all students to achieve.
- Short survey to determine personal learning style
- Brief interactive PowerPoint session to describe specifically how the use of learning styles theory can enhance the effectiveness of cooperative learning through:
  - group formation
  - strategy selection
  - assessment choices
- Participant activity to apply theory to an individual course
- Candy bar summary activity

Rationale:

Many professors are reluctant to test the waters of cooperative learning and are content to stay with lecturing or recitation techniques that have worked in the past. Others have taken tentative steps and when dissatisfied with the results, retreat to the tried and true – the comfortable reality of teacher-directed instruction. Unfortunately, frequently educators confuse cooperative learning with small group activities. However, if instruction includes specific components of a research-based cooperative learning model, the possibility for success in terms of student achievement and attitude will be greatly enhanced (Johnson & Johnson, 1991; Morgan, 2000).

The focus of our presentation is on three of these elements, optimal composition of cooperative learning groups, selection of strategies, and use of student options. We will use learning styles theory to illustrate ways to form groups and to select strategies to increase student learning.

Two basic premises guide the use of learning styles theory in the university classroom. First, knowing our own learning style helps us to understand the impact we have on others. Second, knowing about the learning style of others helps us to understand why they react or respond in the ways that they do. Acting on these ideas enables teachers and students to perceive the classroom as a partnership and not as a one-dimensional structure (Dunn & Griggs, 2000).

This movement from teacher-directed to student-engaged instruction has experienced an increased urgency due to several compelling factors:

- increased accountability for student achievement
- greater diversity in student populations

- expanded body of knowledge about how people learn (Sousa, 2000).

Improving learning is a goal of all educators. (Potthast, 1999). In 2003 hoping for improvement is nice, but taking conscious and deliberate steps to ensure student learning is imperative. Using learning style responsive cooperative learning is a meaningful way to begin this process.

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Technology and Effective Public Speaking Instruction

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The Department of Communication at the University of Dayton recently implemented a technology enhanced introductory level public speaking course. The course is part of a university-wide oral communication competency requirement. The technology employed in the course includes student use of traditional technology to practice oral presentations outside of the classroom and an assessment website that allows students to assess and reflect on their public speaking abilities, attitudes and anxiety. The assessment website provides a variety of measures of student learning, public speaking anxiety, and student perceptions of communicative competence. Web-based instruction and recorded practice and review of oral presentations decreased student public speaking apprehension while increasing student confidence in their public speaking abilities. This finding was corroborated by instructor assessments of improved student performance including both content and delivery factors. The combination of web-based instruction and video and audio technology clearly enhanced students' self-awareness of their strengths and weaknesses and increased students' public speaking effectiveness.

Questioning Techniques to Inspire Critical Thinking in the Classroom

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Presentation Objectives

To provide teaching faculty with a useful tool for encouraging critical thinking in the classroom; to demonstrate techniques that teaching faculty can implement immediately into their curriculum; to provide participants the opportunity to practice questioning techniques and to become skilled questioners.

Introduction

The lecture format of learning has a strong tradition, however, it often emphasizes rote learning, not critical thinking. This approach is popular because it can be easily adopted by new teachers and by those unaware that there are other alternatives. It is very difficult to increase a student's critical thinking skills with the lecture format; topics are discussed sequentially, not critically, the students memorize the material because the lecture method stresses the delivery of large amounts of information, and the student is placed in a passive role because the teacher does the talking, the questioning, and therefore most of the thinking (Maiorana, 1991).

Questioning techniques can be used to overcome some of the limitations of the lecture method. Questions can be used to stimulate interaction between teacher and learner and challenge the learner to defend his or her position.

Critical Thinking

Elder and Paul (1997) proposed that the art of questioning is essential to the art of learning; "solely to the extent that students ask genuine questions and seek answers to them are students taking content seriously". Students learn math by asking questions about math, students learn about history by asking questions about history, and students learn business by asking questions about business.

Bloom (1956) classified learning behaviors according to six levels; each level relates to a higher level of cognitive ability. *Knowledge* focuses on remembering and reciting information. *Comprehension* focuses on relating and organizing previously learned information. *Application* focuses upon applying information according to a rule or principle in a specific situation. *Analysis* is critical thinking which focuses on parts and their functionality in the whole. *Synthesis* is critical thinking which focuses on putting parts together to form a new and original whole. *Evaluation* is critical thinking which focuses upon valuing and making judgments based upon information. Critical thinking takes place when students are required to perform in the analysis – evaluation range.

Creating a Comfortable Classroom

When attempting to improve participation, it is important to avoid the typical pattern of a few talkers and many listeners. Cohen (1995) emphasized that communication discomfort in the classroom is a multicultural issue and went on to offer tips to reduce the communication discomfort. Some of these tips include telling students they are all expected to participate; monitoring the selection of speakers; waiting at least three seconds after asking a question; and asking a question at the end of class for students to come prepared to answer next class.

Becoming a Skilled Questioner

According to Teaching Strategies (2003), the crucial elements of a skilled questioner are that they: are brief and concise; are prepared to rephrase questions; are prepared to draw further responses from participants; use a variety of techniques; redirect questions/responses; provide feedback and reinforcement without repeating answers; and spread questions around the class.

There are a number of ways to improve your questioning skills. First, give up one-at-a-time questioning in exchange for an interactive group discussion. Individual questioning engages only one student at a time; those not directly engaged in the discussion have a tendency to disengage.

Second, move from leading the discussion to facilitating. The role of a discussion leader is very different from the role of lecturer. Your role is to lead students into discussion, foster understanding, and stimulate intellectual growth.

Further, you must be prepared to deal constructively with the shy student, the lazy student, the overly talkative student, and the student who keeps challenging you.

Third, utilize the appropriate discussion model. The focused discussion model is good for the natural sciences and engineering and often works best when the instructor keeps students focused. This allows the instructor to cover larger amounts of material, to separate the major from the minor concepts, and to place more emphasis on review, clarification, and elaboration of the lecture and course readings. The open discussion model is good for the social sciences and humanities, where there is seldom one correct answer or approach. In this setting, a less structured and less directed discussion format usually works best. Most fields of study however, benefit from a combination of both techniques.

Fourth, continually refine the art of questioning. There are many different types of questions and good questions are the key to inspiring critical thinking. The most productive questions will elicit a variety of responses and will invite students to think about and respond at a higher level. The Socratic technique produces questions that foster critical thinking, evaluation, and knowledge application. This technique includes questions of clarification, questions that probe assumptions, questions that probe reasons and evidence, questions about viewpoints or perspectives, questions that probe implications and consequences, and questions about the question.

Critical thinking can be characterized by the presence of a readiness to question all assumptions, an ability to recognize when it is necessary to question, and an ability to evaluate and analyze (Atton, 1994). Critical thinking has been widely recognized and encouraged in education for many years. The use of questioning techniques is one way that teachers can inspire critical thinking among their students and across the curriculum.

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Overcoming the Dark Side of PowerPoint:
How to incorporate interactive, student-based learning into a computer-based lecture.

Todd Wellnitz

PowerPoint lectures have revolutionized the classroom and ushered in a new age of biology and science teaching in the classroom. As instructors we can now create visually appealing lectures that integrate sophisticated multimedia from CD-ROMs and publisher websites. But there is a "dark side" to this technological revolution. Educators are becoming concerned that the "smart," computer-based classroom is encouraging technology-dependent instruction, passive and non-interactive teaching, and drawing us away from student-based learning. Indeed, too often the PowerPoint lecture occurs in a darkened classroom where student attention is focused on a flat screen instead of a dynamic instructor. Interaction with students becomes subdued, questions become infrequent, and intellectually rewarding digressions, if unscripted, become unwieldy or difficult to accomplish. Some students say that attending a PowerPoint lecture is "just like watching television." Unfortunately, they are not entirely wrong.

This presentation will explore how instructors can use PowerPoint and other computer-based instruction technologies as an effective teaching tool without sacrificing interactive and student-based learning. The topics covered will be useful to both beginning and seasoned teachers of biology and other science courses, and is especially relevant to instructors who teach in a large classroom setting (i.e., > 50 students). I will explore strategies for engaging your students during PowerPoint-based lectures and demonstrate how incorporating traditional teaching methods into the high-tech classroom can help you to inform, connect with, and motivate your students. My topics will include:

- Stepping away from the podium (and how to do it).
- Planning "intermissions"
- Props, wonderful props!
- "May I have a volunteer from the audience?"
- How book-excerpt reading can make a topic memorable.
- Plants, animals, protozoa and other entertaining "guests."

Virtual Canine Anatomy and Computer-Assisted Teaching Laboratory

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The advent of computers in schools and colleges has opened new possibilities in the presentation of laboratory instruction. Instead of static images and verbiage in printed manuals, multimedia presentation using computers enable the instructor to present dissections using videos, interactive three-dimensional projections, animations and interactive images. We provide students with learning tools that foster interactive, independent and lifelong learning skills. Our multimedia interactive teaching programs have brought about a radical change in the way that our students learn veterinary neurobiology. Our work relies heavily on case-based presentations that allow our students to learn the basic sciences in the context of clinical problems. Our current interactive-multimedia programs (*Interactive Veterinary Neurobiology* and *Interactive Cases in Veterinary Neurology)* have been shown to be appropriate for teaching problem-solving skills and basic sciences to veterinary medical students. Based upon our success with neurobiology, we have begun to write an interactive software program, *Virtual Canine Anatomy,* which is designed to teach mammalian anatomy. Instead of static images and text in printed manuals, interactive multimedia programs allow instructors to present dissections using videos, three-dimensional virtual dissection specimens, animations and interactive photographs. Our programs allow students to efficiently prepare for laboratory experiences, receive guidance during dissections, and review material throughout their careers. It is our aim to complete this multimedia software program to guide the laboratory dissection of the dog and to allow students from undergraduates to practicing professionals to learn in many environments, study at their own pace and time, and apply anatomy to clinically relevant situations.

Objective 1 - Enhance learning and retention of functional canine anatomy through a self-paced interactive multimedia program, Virtual Anatomy of the Dog. A more effective presentation of the subject matter, both in and out of the laboratory, means that the students spend more time applying the information in context of solving problems rather than simply identifying anatomical structures. Our interactive program will allow for both the acquisition of information and the solving of real-world relevant problems. Such problem-solving methods of education are designed to stimulate deeper understanding of the material.

Objective 2 - Improve access to anatomical information by students and researchers at CSU and at distant sites. Our programs will allow students to learn and review mammalian anatomy in a portable and easily accessible manner. The anatomy of a given region can be reviewed, a layer at time, using the interactive dissection photographs and virtual reality 3-D dissection specimens.

Objective 3 - To determine the educational efficacy of multimedia-based programs in relation to traditional modes of learning when used by students at various educational levels, and to assess the strengths and weaknesses of the multimedia user interface and instructional content of the DVD software. The evaluation encompasses several elements of program development including the selection, implementation, and outcome stages. Accordingly, the evaluation will also serve numerous functions, such as a feasibility study, an implementation assessment, and an outcome evaluation

We have developed a state-of-the-art media teaching laboratory / classroom in which to deliver this courseware. We have 34 mobile computing stations that deliver our programs to the dissection tables. For delivery of live video, microscopic images, and dissection specimens, the computers are incorporated into a wireless LAN. The laboratory has full digital projection facilities and multimedia support.

Assessing Learning: The Express Yourself Learning Project

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OBJECTIVES:

1. Introduce the concept and process of "express yourself" learning as a tool of assessment.
2. Introduce how the need for an express yourself learning project was identified.
3. Share examples of assessment results from students participating in "express yourself" learning projects.
4. Provide audience with an opportunity to engage in an express yourself learning activity during the session

TARGET AUDIENCE:

College Professors and High School Teachers

ACTIVITIES:

1. Presenter will provide mini lecture on express yourself learning and how it relates to learning styles and assessment.
2. Presenter will lead a discussion with session participants introducing content on identity theft to provide a context for the session activity.
3. Participants will be provided with guidelines to help them choose the vehicle they would like to use to express to others what they have learned.
4. Participants will create an express yourself learning project as part of a small group.

How do we assess student performance in such a way that the student's learning style is considered in the assessment? This question led to the birth of the "Express Yourself" learning project. Assessment of learning is certainly not new. Research on learning styles is not new. With express yourself learning, learning styles are considered beyond the delivery of instruction. They are now considered and play a key role (in a decision by students) in what will be used to reflect what the student has learned in the course unit of instruction. Express yourself learning unleashes an incredible amount of creativity in students.

Students engage in a multi step process to produce their expression of learning. The process requires extensive familiarity with the course concept that they are expressing their learning on. The ideal is not necessarily that they will teach other students; rather, they get to choose how they will demonstrate to their instructor that they know the course material.. The instructor wants to know that they know. Rather than having the educator design an examination or design a project, students take on that responsibility. The result has been some very creative presentations. Students work extensively with the material they are presenting on, and as a result, their knowledge and comprehension of that material increases

Beginning with a framework that not all students can demonstrate their proficiency with material by performing on an examination and not all students will demonstrate that they know material through a project designed by their faculty member, I determined to let students decide to express to me what they know. I select the topic; they select the method to be used to demonstrate their knowledge. The method they use is tied directly to their preferred learning style.

When this project first began, it was birthed out of a need that arose in the classroom. Students who clearly knew course content were unable to demonstrate their knowledge through traditional examinations. Students also were not able to demonstrate their knowledge through fancy projects designed by their faculty member. Faced with this dilemma, I determined to allow students the opportunity to choose how they would demonstrate to me that they had learned a unit of course material. We began with in-class assessments of a unit of material. The result was so creatrive and phenomenal that it was extended to the course project. No longer was the faculty member the creator and/or conductor of the course project. Rather, each student team determined how they would "let me know" – in other words express themselves – so that I could engage in effective assessment.

Come prepared to learn a unit of instruction and decide how you want to express to others (creatively) how you know what you say you know.

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"A Passion for Excellence"
Applying Principles of Popular Management Books to Teaching

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Tom Peters with Robert Waterman and Nancy Austin created three very popular management books in the 1980's. The books were "In Search of Excellence: Lessons from America's Best Run Companies", "A Passion for Excellence: The Leadership Difference", and "Thriving on Chaos: Handbook for a Management Revolution". While these books were extremely popular in the business management world, they have a lot to offer to the education field as well.

Taking the theme from the title of the second book "A Passion for Excellence", Peters presented these basic concepts:

- Taking care of customers
- Constant innovation
- Turned on people
- And … leadership

Peters gave these concepts for leadership:

- Vision
- Cheerleading
- Enthusiasm
- Love
- Trust
- Passion
- Obsession
- Consistency
- Pay attention
- Creating heroes
- Coaching
- Effectively wandering around

Are you a passionate teacher? Do you have many of the concepts that Peters gave (above)? Do you take care of your customers – who may be students in the closest sense, but their parents and family, employers, and other stakeholders? Do you work for constant innovation and improvement?

These concepts will be studied in this presentation.
Attention and discussion will focus on improving these skills and becoming a passionate teacher!!!

Presentation Overview:
This presentation will consist of three parts: (a) an initial presentation of the concepts promoted by the three books; (b) a hands-on activity period and (c) a final discussion period where the focus will be on implementing the concepts in an educational environment.

Target Audience:
Educators looking at being passionate about teaching!!!!

Gaining Perspective: Changing Students' Personal and World View Through International Experiences. Impact of International Study Experiences

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This presentation is geared towards educators from all disciplines and settings. It will address the importance of organized international study experiences in empowering adult learners to gain insight into themselves, their interactions with others, and the manner in which they experience the world. While learners seek these educational adventures to tour beautiful places and learn about other cultures, they are often surprised by the hidden treasures that these distant travels contain when it comes to learning about themselves. Such discoveries can be painful but highly rewarding. They assist students with better self-definition, value clarification, and the identification of personal bias. Most importantly, these educational adventures take students out of their comfort zones, enable them to participate in the designing their own learning process, and provide unforgettable hands on experiences that directly impact their ability to be culturally competent.

The presenter will share guidelines for designing and leading successful international experiences, insight into the preparation that students must receive prior to their journey, as well as the processing and integration that must be planned for throughout the experience. The outcome underscores the importance of helping students expand their personal, interpersonal, and global awareness. Participation in these global experiences promote students' identity formation and ideology related to social and political issues, as well as the impact of U.S. foreign policy on the global community. Most importantly, students begin to experience themselves as members of an out-group in the country they are visiting. This uncomfortable role reversal is often if not disturbing and leads learners to begin to empathize with out-groups in their own country.

The presentation is based on the experiences of the presenter as a successful tour leader who engaged in extensive research related to the impact of international study tours on college students. The presenter plans to engage workshop participants in a dialogue related to their own innovative pedagogy related to international learning opportunities. Higher education institutions throughout the country are striving to increase the global awareness and cultural sensitivity of students in hopes of preparing them for the challenges of the twenty first century. Thus, faculty members are being asked to develop international programs and would benefit greatly from learning of current research related to learning outcomes of such tours. International study experiences provide students with a different and often life changing perspective about their country and others.