

# Teaching Matters

The Teaching and Learning Center of the University of the Sciences in Philadelphia

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## Promoting innovations through an understanding of the change process

By Phyllis Blumberg

We, as a university, along with all other institutions of higher learning, and as a country, seem to be on the verge of change. For many people, change can be threatening. Yet, with knowledge about how changes take place, innovations can be exciting. An understanding of the change process can help people to see their own roles within the process and to appreciate why some changes occur faster than other others. Kotter's (1996) 8 stages of change will be integrated with ideas of diffusion of innovation (Middendorf, 1999 and Rogers, 1995) in this article to foster an understanding of the change process in academics. Although these concepts are discussed as stages, they do not need to be linear in sequence. Sometimes, work can be done on more than one stage at a time. These theoretical constructs will make more sense if you apply them to real changes that you have experienced or are experiencing currently.

1<sup>st</sup> stage of change: Establish a sense of urgency. Internal and external motives for change may create a sense of urgency. For example, is the job market changing, do employers of our graduates seek better-prepared practitioners or a different set of skills? Data can be a compelling motivation for change. Such data may show that we are not adequately meeting the needs of current students.

2<sup>nd</sup> stage of change: Create a guiding coalition. Those who strongly believe in this cause are natural choices for this coalition. Change agents should be included among the guiding coalition. However, others, such as leaders and gatekeepers (important decision-makers, such as the chair of a key committee), need to be included also. As these leaders and gatekeepers, who may not be as strongly committed to the cause at first, learn more about why this change needs to occur, they will promote it.

3<sup>rd</sup> stage of change: Develop a vision and strategy. The coalition should develop a strong vision statement to help direct the change effort. This vision should match a problem with a solution. Further tasks here include developing strategies for achieving the vision, agreeing upon goals and an agenda for change. As scholars, we often look to what others have done by learning about similar problems through reading, observing or communicating with people who are further along in this change process. A consultant or outside speakers may help us to develop the vision and strategies for change.

*Continued on p. 6*

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Teaching Matters is published by the Teaching and Learning Center of the University of the Sciences in Philadelphia. Information, inquiries and comments are welcome and should be directed to:

Phyllis Blumberg, Ph.D., Director  
The Teaching and Learning Center, GH-218  
University of the Sciences in Philadelphia  
600 South Forty-third Street  
Philadelphia, PA 19104-4495  
Phone: (215) 895-1167  
or (215) 895-1168  
FAX: (215) 895-1100  
e-mail [p.blumb@usip.edu](mailto:p.blumb@usip.edu)  
or [j.mccllel@usip.edu](mailto:j.mccllel@usip.edu)

The Teaching and Learning Center is an educational resource for all USP faculty who are interested in helping their students become more effective learners. It maintains a current collection of books and periodicals relating to teaching and learning and student assessment. ¾

An Abstract from the *Review of Educational Research, Spring 1999, Vol. 69, No. 1, pp.21-51*. The full article is available in the Teaching and Learning Center.

**Effects of Small-Group Learning on Undergraduates in Science, Mathematics, Engineering, and Technology (Health Sciences): A Meta-Analysis**

**By L. Springer, M. E. Stanne & S. S. Donovan**

Recent calls for instructional innovation in undergraduate science, mathematics, engineering, and technology, (includes allied health in technology), (SMET) courses and programs highlight the need for a solid foundation of education research at the undergraduate level on which to base policy and practice. The results of this study exceed most findings in comparable reviews of research on educational innovations and supports more widespread implementation of small-group learning in undergraduate SMET.

A consistent recommendation advanced in these recent reports is the need for a shift in emphasis from teaching to learning. The message is clear: What students learn is greatly influenced by how they learn, and many students learn best through active, collaborative, small-group work inside and outside the classroom. The National Science Foundation (1996), for example, recommends that students have frequent access to active learning experiences in class and out of class (through study groups).

The National Science Foundation (1996) asserts that the unintended consequences of this focus on teaching rather than learning include unfavorable attitudes toward SMET among students, unacceptably high attrition from SMET fields of study, inadequate preparation for teaching science and mathematics at the precollege level, and graduates who go out into the workforce ill-prepared to solve real problems in a cooperative way, lacking the skills and motivation to continue learning.

The positive effects of small group learning were consistent for the different groups studied including men and women; SMET majors, preservice teachers, and other nonmajors; or first-year and other students.

These general effects are particularly important because they suggest that some small-group work is more effective than purely lecture-based instruction in the gateway courses taken by majors who strive toward SMET and to other nonmajors who hope to gain SMET literacy. In addition the positive effects of small-group learning were significantly greater for members of underrepresented groups.

Small-group work also led to more favorable attitudes between men and women; SMET majors and preservice teachers; first-year and other students. More favorable attitudes were especially evident in groups of women.

The study found no significant differences in the positive effects of cooperative, collaborative, or mixed forms of small-group learning on students' achievement. One might interpret this result as supporting the conclusion that "any movement in the direction of getting students more actively involved should be commended" (Cooper & Robinson, 1998, p. 386). The study also found that out-of-class meetings (typically study sessions) have greater effects on students' achievement than in-class collaboration, and in class collaboration has more favorable effects on students' attitudes than out-of class meetings. The analysis suggests that the more time students spend working in groups, the more favorable their learning-related attitudes become.

***Implications for Theory, Research, Policy, and Practice***

The results suggest that small-group learning is effective in undergraduate SMET courses and programs and support more widespread implementation of small-group learning in undergraduate SMET. Students who learn in small groups generally demonstrate greater academic achievement, express more favorable attitudes toward learning, and persist through SMET courses or programs to a greater extent than their more traditionally taught counterparts. The reported effects are relatively large in research on educational innovation and have a great deal of practical significance.

Results of the analyses of student groups have particularly important implications for policy and practice because they are consistent with the proposition that small-group work is warranted in SMET courses and programs, and that effective alternatives to purely lecture-based instruction are readily available. In addition, the results suggest that small-group learning may have particularly large effects on the academic achievement of members underrepresented groups and the learning-related attitudes of women and preservice teachers.

Moreover, working in-groups leads to more favorable attitudes among students in general and that even minimal group work can have positive effects on student achievement. Furthermore, small-group learning can reduce attrition in SMET courses and program substantially. The 22% difference in attrition reported is based on data from various groups of students, from multiple postsecondary institutions, reflecting vastly divergent forms of small-group work. <sup>3</sup>/<sub>4</sub>

# CALL FOR OWL AWARDS NOMINATIONS

## INNNOVATIONS WITH LEARNING

Submit your application for the Teaching and Learning Center's Annual OWL Awards

### INNOVATIONS WITH LEARNING

In memory of Patricia Leahy

The OWL Awards have been established to acknowledge faculty efforts in fine tuning the craft and furthering the art of teaching.

#### WHAT'S NEW IN YOUR CLASSROOM?

Faculty members' use of new instructional strategies typically require much planning time, a willingness to take risks, and delayed or even uncertain reward. The **OWL** Award recognizes those faculty members who are currently experimenting with their teaching.

If you have developed and used an instructional strategy, within the last 2 years, in a way that is unique for you, you are eligible to apply; there is no requirement that the strategy be totally original. Examples of such strategies are: giving an assignment designed to increase students' thinking skills; using small groups within a large class; using computers in a laboratory course: incorporating student analyses of case studies into a course; or developing an interdisciplinary approach to a topic. Groups of faculty members who have collaborated on the development of a new approach are also encouraged to apply.

Full-time University faculty members who are in their third year or more of employment at USP may apply. Individuals who receive an **OWL** in one academic year are not eligible to apply the next year, but may apply again any time after that.

If you would like to be considered for an **OWL** award please send a 1-2-page letter of application by **Friday, February 18<sup>th</sup>, 2000** to Phyllis Blumberg, Director of the Teaching and Learning Center.

All nominees will present an informal poster at Talking About Teaching Reception and Fair, May 17, 2000.

PLEASE INCLUDE THE FOLLOWING INFORMATION IN YOUR LETTER.

**Description:** Provide a description, in some detail, of the new strategy. How you arrived at the idea? What characteristics of this strategy make it conducive to enhancing your students' learning? In what type of course did you use the strategy (elective/required/clinical/laboratory/classroom, number of students, etc.)? Feel free to attach copies of student assignments, class handouts, test questions, etc.

**Rationale:** What were your reasons for deciding to try something different? How did this approach differ from what you have done in the past?

**Outcomes:** What were your students' reactions to the new strategy? What differences, if any, did the new strategy make in your students learning or in their attitude toward the subject? What evidence do you have for this?

**Reflections:** Will you continue to use the strategy? Why or why not? What, if anything, will you do differently next time? What advice would you have for colleagues who want to try new instructional strategies in their own classes?

Letters of application will be reviewed and **OWL** recipients determined by a review committee composed of the previous year's **OWL** recipients, assisted by the Teaching and Learning Center Director. <sup>3</sup>/<sub>4</sub>

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### THANK YOU FOR NOMINATIONS RECEIVED.

The Teaching and Learning Center and the OWL Review Committee would like to thank those who have been nominated for submitting their innovations .

This year's awards ceremony promises to be an exciting and thought provoking event, where all the innovations submitted will be showcased and guests may take time to review those which are most relevant to their own teaching styles and classrooms. <sup>3</sup>/<sub>4</sub>

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### GRANT MONEY AVAILABLE FOR TRAVEL & INSTRUCTIONAL TECHNOLOGY

**Grant Categories.** Up to \$400 per individual is available for attendance at a conference, which focuses on teaching and learning.

Up to \$400 is available towards the costs of learning about or integrating technology into your courses. The money need not be spent at conferences. Grant money can also be spent on software or other technology to be used by students.

#### Application Procedures

Please send a one to two page letter of application electronically to Phyllis Blumberg, p.blumbe@usip.edu, describing each of the following points. 1) The activity or resource that you wish considered for funding. Include detailed information, attaching relevant brochures. 2) The specific ways in which this activity or resource will enhance the teaching and learning process in your course(s). Priority will be given to those applications that show a potential for incorporating technology in a way that changes how students learn. 3) Cost of the resource or detailed anticipated budget for the activity, including travel expenses, if applicable. 4) Specific plans for sharing with members of your department or other USP faculty members the ideas and/or information that result from your participation in this activity.

Grant applications will be reviewed by the Teaching and Learning Center Advisory Committee, composed of your colleagues from across the University. Awards will be made on a rolling basis in accordance with the fiscal year cycle. <sup>3</sup>/<sub>4</sub>

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## OVERVIEW OF PREVIOUS T5 TABLE TALK TEACHING TIPS AND TECHNIQUES

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October, 1999

### Student Assessment Techniques: Multiple Choices

**Discussants:** Phyllis Blumberg, Annette Iglarsh, Ken Leibowitz, Lili Velez,

❖ **Affective Domain:**

- Students assess themselves according to specific criteria and three level scale
- Advisor reviews student self-assessment
- Often leads to good discussions about performance
- Same scale used repeatedly

❖ **Grading Essay Exams:**

- Specify what points expect
- Establish model answers, criteria expected for each grade level
- Explicitly tell students what you expect
- Peers can be used to review assignments especially to look at writing
- Ask students to complete following questions when they hand in papers/ take home exams:
  - What were you satisfied with on this assignment?
  - What were you not satisfied with on this assignment?
  - How much total time did you spend on this assignment?
  - How did you know when you were done?
  - What would you do differently now if you were to redo this assignment?

❖ **Multiple Choice Tests:**

- Develop a pool of items that have been used repeated
- Semester to semester comparisons can be made
- List the kind of item ( recall, comprehension, application, problem solving, etc.) on the exam itself
- Analyze how student did by level of question

❖ **Students select grade by contract**

- Amount of assignments satisfactorily done equals grade in course
- Students select grade at the beginning of the course, can do more to get higher grade, but not less to get lower grade

❖ **Classroom assessment techniques (CAT)**

- Efficient way to gather feedback on how students are doing in your class, how much they are learning
- Important to tell students that you are making changes as a result of the feedback you have received from them
- Start small, start with a course that is going well
- >50 CAT's that have been described in literature
- NSF has worked with faculty across the country to develop CAT's for science, math, health courses see [www.wcer.wisc.edu/nise/cl1](http://www.wcer.wisc.edu/nise/cl1)
- 1 simple CAT -1 minute paper:
  - ask students to write answers to these questions at end of class
    - What was the most important point you learned this class?
    - What important question remains unanswered?
  - Read over, sort into 3 piles – on target, close, missed point¾

November, 1999

### Using Multiple Intelligences to improve student learning

**Discussant:** Lois Peck

- About 15-20 years ago Howard Gardiner began developing his theory of Multiple Intelligences
- This theory is still evolving, with additional intelligences being incorporated
- Very popular in primary and secondary education, becoming more popular in higher education
- Intelligences relate to how people process information
- Humans have 8 intelligences:
  - Linguistic
  - Logical- mathematical
  - Spatial
  - Bodily – kinesthetic
  - Musical
  - Interpersonal
  - Intrapersonal
  - Naturalistic
- Purpose of education is to foster and develop all 8 intelligences
- Teaching styles should be varied to try to reach all 8 intelligences
- Some people, including Dr. Ara DerMarderosian, have developed all 8 intelligences
- Students respond to things differently depending on which intelligences are tapped ¾

JANUARY, 2000

### Fostering critical thinking and problem solving.

**Discussants:** Roger Ideishi Laura Mandos, Fran Mayville, Elena Umland, and Rod Wigent

- Try to get students to go through problem solving steps, can be modeled by faculty at first, then students do with assistance
- Students need to learn to accept uncertainty, that there is not always one correct answer
- Students need to learn that they need to take risks in their learning and to be able to show their mistakes and learn from these experiences
- Using real life examples helps to foster problem solving
- Pharmacy faculty have tried to integrate material into blocks or have taught separate courses relating to different diseases. Divided opinions as which is the best method
- Principles of Chemistry tries to develop following skills:
  - Develop a data base of terminology, facts, fundamental principles
  - Comprehend the problem, identify main point or type of problem that is necessary to solve the problem
  - Recognize relevant information from that which is not relevant to solving the problem
  - Recognize any necessary assumptions that are needed
  - Use fundamental principles to manipulate information to arrive at a reasonable solution to the problem
  - Critically assess the solution
  - Develop insights to alternative methods to solving the problem
  - Apply concepts learned in solving this problem to new problems
- OT plans their entire curriculum to foster critical thinking skills. There is a developmental progression of reasoning skills:
  - Procedural thinking (usually enter professional program with this skill)
  - Interactive reasoning – as it relates to the situation, solution is not determined in advance

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## OVERVIEW OF PREVIOUS T4 TABLE TALK TEACHING AND TECHNOLOGY

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October, 1999

### Using ERes to aid in your teaching

**Discussants:** Sue Barker, Lisa Davis, Nicole Duncan-Kinard, Tim McPherson, Clyde Ofner, and Suzanne Trump

- Nicole Duncan-Kinard is very helpful when faculty are just starting out using ERes
- All of the materials for a course, including the lecture outlines, assignments, sample test items, etc. can be put on ERes
- This reduces faculty time dealing with course mechanics
- This is helpful for the students, especially if they missed a class or misplaced a handout
- Students enjoy having it all available and like using the technology
- Since it is more costly to print from a computer than to make photocopies, handouts should still be given as paper copies
- If lectures notes are available on ERes in advance of the class, students can use them as a foundation for their own note taking
- Attendance drops if all lecture notes, especially detailed notes are available to the students
- Faculty might need to change teaching strategy, moving away from a need to cover everything in lecture, to concentrating on critical thinking or emphasizing difficult material
- Journal articles that we have a licensing agreement to post electronically can be put onto the ERes
- Bulletin boards can be useful for students and faculty to post interesting facts <sup>¾</sup>

November, 1999

### Web Supported Courses

**Discussants:** Amy Christopher, John Connors, Pam Johns, Jacquie Smith

- Amy Christopher and Leslie Ann Bowman have developed a sheet for students to use to evaluate Web sites asking students to consider accuracy, currency, scope of coverage, objectivity, ease of use, and authority.
- Because USP uses the Web as a gateway to other purchased data, journals, etc, the students need to realize that all that they access through the Web at school is not free.
- Web searching for material is a good starting point. It may not get them to specialized engines or technical sites.
- Everyone who used material from the Web must accurately give the citation from the site including the date they accessed it and the date of site update.
- On-line courses that are totally asynchronous might benefit from a scheduled time chat room.
- It is hard to gage how much time the students are spending on an on-line course. Also it is hard to gage how much reading to give the students and what is worth three credits.
- US Dept. of Defense has the most, best developed on-line or distance courses. They are available for us to look at them.
- Presently none of the web-based instructional packages serve all needs for all courses. The features and services vary from company to company. Any platform that meets IMS standards should be transferable to other platforms.
- As with any new instructional format, the first few weeks are slow for the students with them being less efficient.

November, 1999

### Web-Supported Courses (cont.)

- Recommendations from the experts in terms of time needed to develop on-line or distance courses include:
  - To convert an existing course- one should consider 6-8 weeks of work
  - One semester, of release time, is recommended for creating new on-line courses
- Release time is strongly recommended
- Courses on-line are more intense and take longer for the students and faculty than conventional time. Links must be checked periodically.
- On-line courses need to have more material spelled out in greater detail than traditional, live courses. Pam John's syllabus for her on-line course on geriatrics is a good example.
- On-line courses should be limited to 25 students per instructor or assistant.
- MIT has on-line courses in biology
- CD's should be used for sending students pictures as the downloading time is slow and not always accurate from electronic transmissions.
- A long term goal of developing Web- courses is they could be a continuing education course for non-matriculating USP students. <sup>¾</sup>

TALKING ABOUT TEACHING  
MAY 17<sup>TH</sup> SPRING 2000

**Talking About Teaching 2000** will be a day of some workshops and roundtable discussions. You will be able to choose and register for a variety of activities during the day. A choice of early morning and late morning workshops, as well as, early afternoon and late afternoon roundtable discussions. Please watch your interoffice and electronic mails for the registration form.

Some workshop topics include respecting student diversity in teaching, advising, discussion techniques for Instruction, and monitoring interactions in the classroom. Some topics for roundtable discussion include teaching portfolios, active learning, how to begin to teach our admitted/matriculated students and service learning. A luncheon discussion period will be held from 12:30-1:30 pm and we will conclude the day with an OWL InnQvarations With Learning Educational Research Fair and Poster Reception

If you have a topic you would like to have included in a workshop or roundtable discussion or research you would like to showcase at the Fair and Poster Reception, please contact the Teaching and Learning Center at x1168 or [p.blumbe@usip.edu](mailto:p.blumbe@usip.edu) or [j.mcclrel@usip.edu](mailto:j.mcclrel@usip.edu). <sup>¾</sup>

(Promoting innovations through an understanding of the change process, continued from p.1)

4<sup>th</sup> stage of change: Communicating the change vision. Use every vehicle to constantly communicate the vision and strategies for change. The message about the innovation needs to be delivered many times to many people before it will be accepted. Also, as more people hear about it, questions will be raised that clarify and strengthen the vision. Discuss the proposed innovation with all necessary parties, especially with non-supporters. Those proposing the change need to become better informed about the campus' resistance to this idea, so that they can work to change the resistance.

5<sup>th</sup> stage of change: Empowering broad-based action. If the previous stage went well, more people will be interested in joining this change movement. Here the coalition needs to form partnerships with many diverse stakeholders. Students can often be supporters and change agents for a change to take place if they see the innovation benefiting them. The goals of this stage are to increase the number of people who support the innovation and to build a presence on the campus. The larger the critical mass the better.

Kantor (1983) uses numerical equalization ratios to show how the size of the critical mass impacts upon the acceptance of an innovation and on the culture of the institution. With 100:0, (an unrealistic ratio) there is a uniform group, with no chance of change. With a skewed group (85:15), the dominant group controls the culture and values of the institution. Those few people with a different view are seen as tokens without a real voice. Once the group balance changes to 65:35, a tilted group with majority – minority status emerges. Change is possible with this kind of ratio. Ideally within the change process, there should be at least a 60:40 or balanced group. Here both sides are considered, but there is enough critical mass for substantial change to occur.

Diffusion of Innovation (Middendorf, 1999 and Rogers, 1995) is concerned with how quickly an innovation is accepted within a group of people. The rate of acceptance can be divided into a normal distribution (see Figure 1). Within the 3% of the innovators, there are a smaller group of acceptable innovators in terms of role models to other people. Some innovators are seen as too much on the fringe, or always trying new ideas, whether or not they are any good, to persuade others. Acceptable innovators often engage in the innovation during the pilot phase of an innovation. Opinion leaders, who come from the 13% of the early acceptors, are the most important faculty to facilitate change. Opinion leaders are trusted and respected by their peers and they have an influence on the rest of the faculty. People who are trying to build a larger critical mass need to consider the amount of effort it will take versus the payoff. Figure 2 shows a contingency framework for the investment of resources (see Figure 2).

6<sup>th</sup> stage of change: Generating short-term wins and implementation. If planning occurs for too long, the enthusiasm for the new idea starts to wane. Implementation can begin small with a pilot or demonstration project. If the innovation is successful, more people, especially students, will want to participate. From the beginning of implementation, collect program evaluation data. Revise the program based on the information gained in the evaluation as well as from experiences. Disseminate the results of the evaluation as widely as possible. This helps convince others about the worth of this innovation. Also, visibly recognize and reward people who made the wins possible such as the original coalition, the supporters, the early implementers and the students who tried it first.

7<sup>th</sup> stage of change: Consolidating gains and producing more change. What changes do you think need to take place at USP? Where do we stand in the change process? How can a larger critical mass be developed to promote the change? During this stage, the goal is to make the innovation a solid part of the culture, or institutionalization of the innovation. Hire, develop and promote people who can and do implement this change. One also needs to reinvigorate the process with new projects or themes and new leaders.

(conclusion on page 7)

Fig. 1

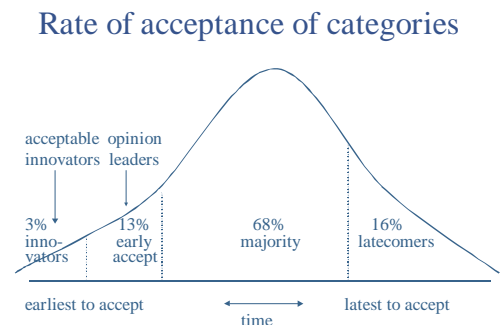
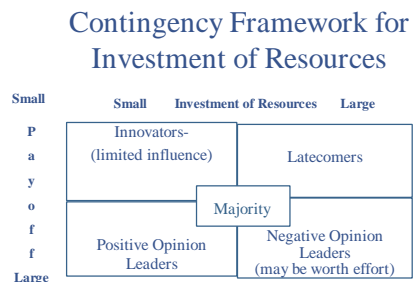


Fig. 2



Figures 1 and 2 From Middendorf, J. K. (2000). Finding the key faculty to influence change. (pp.83-95). In M. Kaplan & D. Lieberman (Eds.), To Improve the Academy, 18. Bolton, MA: Anker. Used with permission of the publisher

(Promoting innovation through an understanding of the change process, continued from page 6)

8<sup>th</sup> stage of change: Anchoring new approaches in the culture. The best predictor of whether an innovation will take hold and succeed is the previous track record of the institution. Innovative places make more innovations. Therefore, one should further create opportunities for new changes. In a culture of change, further leadership is developed and new people can take on leadership roles.

What changes do you think need to take place at USP? Where do we stand in the change process? How can a larger critical mass be developed to promote the change?

References:

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Rogers, EM Diffusion of Innovation. NY: The Free Press, 1995

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## EDUCATIONAL CONFERENCES OF NOTE

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FULL BROCHURES CAN BE FOUND IN THE TEACHING AND LEARNING CENTER

### FEBRUARY

**DEVELOPING & ASSESSING STUDENT READINESS FOR THE WORKPLACE** SPONSORED BY THE ERCBEC 13<sup>TH</sup> ANNUAL CONFERENCE, FEBRUARY 15<sup>TH</sup>-18<sup>TH</sup>, MYRTLE BEACH, SOUTH CAROLINA. FOR MORE INFORMATION VISIT [HTTP://WWW.OCTECH.ORG/ERCBEC](http://www.octech.org/ercbec)

**STOP SURFING, START TEACHING: TEACHING AND LEARNING THROUGH THE INTERNET.** SPONSORED BY UNIVERSITY OF SOUTH CAROLINA IN CHARLESTON, FEBRUARY 20<sup>TH</sup>-23<sup>RD</sup>. MORE INFORMATION AVAILABLE AT [HTTP://WWW.RCCE.SC.EDU/SSST.HTML](http://www.rcce.sc.edu/ssst.html)

**IMPROVING UNDERGRADUATE EDUCATION: TEACHING AND LEARNING IN THE CONTEXT OF CULTURAL DIFFERENCES,** FEBRUARY 25-26, 2000 SPONSORED BY THE WASHINGTON CENTER FOR IMPROVING UNDERGRADUATE EDUCATION. CONTACT BARB DETERMAN, CONFERENCE COORDINATOR FOR THE WASHINGTON CENTER AT 360-866-6000 EXT 6585.

**GETTING CREATIVE ABOUT CRITICAL THINKING,** FEBRUARY, 27-29, SAVANNAH, GA. SPONSORED BY THE IDEA CENTER AT KANSAS STATE UNIVERSITY. [HTTP://WWW.IDEA.KSU.EDU](http://www.idea.ksu.edu)

### MARCH

**DOES TECHNOLOGY MAKE A DIFFERENCE?** MARCH 8-10, 2000, BY THE INTERNATIONAL CONFERENCE ON LEARNING WITH TECHNOLOGY, **TEMPLE UNIVERSITY, PHILADELPHIA, PA.** INFORMATION: [HTTP://WWW.TEMPLE.EDU/ICLT/](http://www.temple.edu/iclt/)\*

**DISTANCE LEARNING WORKSHOP** EVERYTHING YOU WANTED TO KNOW ABOUT TEACHING ON THE WWW AND INTERACTIVE TELEVISION AND DARED TO ASK, INTRODUCTORY AND INTERMEDIATE LEVEL WORKSHOP, THOMAS E. CYRS, Ed.D. [WWW.NMSU.EDU/~CED/WKSHP.HTM](http://www.nmsu.edu/~ced/wkshp.htm)

**WOMEN'S LIVES, WOMEN'S VOICES, WOMEN'S SOLUTIONS: SHAPING A NATIONAL AGENDA FOR WOMEN IN HIGHER EDUCATION,** SPONSORED BY THE UNIVERSITY OF MINNESOTA, MARCH 27<sup>TH</sup>-29<sup>TH</sup> ATTEND BY TELECOMMUNICATIONS AT UNIVERSITIES LISTED ON THE WEB SITE OR THE EAST COAST REGIONAL CONFERENCE SITE [WWW.UMN.EDU/WOMEN/WIHE.HTML](http://www.umn.edu/women/wihe.html)

### APRIL

**KEEPING THE TOUCH IN TECHNOLOGY, TEACHING IN HIGHER EDUCATION (THE) FORUM,** APRIL 9-11, 2000, LOUISIANA STATE UNIVERSITY-BATON ROUGE. CONTACT BARBARA DANOS OR ART CRAWLEY IN THE LSU CENTER FOR FACULTY DEVELOPMENT, 225-388-1135, [BDANOS1@LSU.EDU](mailto:BDANOS1@LSU.EDU) \* OR VISIT [HTTP://WWW.DISD.LSU.EDU](http://www.disd.lsu.edu)

**TEACHING, LEARNING & TECHNOLOGY: CHALLENGES FOR CREATING SUSTAINABLE CHANGE IN THE NEW MILLENNIUM,** SPONSORED BY THE TLT GROUP AFFILIATE OF AAHE. APRIL 12<sup>TH</sup>-15<sup>TH</sup>, IN JACKSONVILLE, FLORIDA. FOR MORE AND UPDATED INFORMATION VISIT [HTTP://WWW.TEACHLEARN.ORG](http://www.teachlearn.org)

**PENNSYLVANIA ACADEMY OF SCIENCE INVITES YOU TO THE FIRST MEETING OF MILLENNIUM,** APRIL 14-16, IN WYOMISSING, PA SPECIAL SESSIONS: INNOVATION IN SCIENCE EDUCATION. INFORMATION AT [HTTP://WWW.PITT.EDU/~AAP/PAS/75THMTG.HTM](http://www.pitt.edu/~AAP/PAS/75THMTG.HTM)

### SUMMER

**PACIFIC RIM CONFERENCE ON HIGHER EDUCATION PLANNING AND ASSESSMENT,** UNIVERSITY OF HAWAII AT HILO JUNE 3<sup>RD</sup>-7<sup>TH</sup>. FOR MORE INFORMATION VISIT THE CAPS WEB SITE AT [HTTP://WEB.INDSTATE.EDU/OIRT/LCE36/](http://web.indstate.edu/oirt/lce36/)

**RIISING EXPECTATIONS, CAN ASSESSMENT DELIVER?** SPONSORED BY THE AAHE, JUNE 14<sup>TH</sup> - 18<sup>TH</sup> AT THE CHARLOTTE CONVENTION CENTER. FOR MORE INFORMATION VISIT [WWW.AAHE.ORG](http://www.aahe.org)

**SUMMER WORKSHOPS ON TEACHING AND ASSESSING STUDENT ABILITIES** SPONSORED BY ALVERNO COLLEGE INSTITUTE. FROM JUNE 19<sup>TH</sup>-23<sup>RD</sup>, FOR MORE INFORMATION YOU CAN CONTACT ALVERNO COLLEGE AT 414-382-6087 OR [INSTITUTE@ALVERNO.EDU](mailto:INSTITUTE@ALVERNO.EDU).

**SLICE OF LIFE, COMPUTERS IN HEALTHCARE, EDUCATION SYMPOSIUM.** FROM JUNE 27<sup>TH</sup>-JULY 1<sup>ST</sup>, UNIVERSITY OF UTAH, SALT LAKE CITY. FOR MORE INFORMATION, PLEASE VISIT [WWW.SLICE.GSM.COM](http://www.slice.gsm.com)

**THE INTERNATIONAL CONFERENCE ON IMPROVING UNIVERSITY TEACHING (IUT)** [HTTP://WWW.IUT2000.ORG](http://www.iut2000.org) WILL BE HELD IN FRANKFURT GERMANY ON JULY 17-20, 2000.¾

\*Note: The web links in blue will take you to information sites on the conferences listed above them. However, recording addresses and accessing them after closing Word may be necessary depending on your computer's capabilities.

**Active Learning: 101 Strategies to Teach Any Subject**, Mel Silberman. *Active Learning* contains the most comprehensive collection of active learning techniques ever published. Each strategy is described with clear, step-by-step instructions. If you are committed to making learning active, but occasionally run out of steam, this is the book to get you back on track with fresh ideas and innovative strategies. If you are just starting off, this book is the perfect introduction.

**Assessment Essentials: Planning, Implementing, and Improving Assessment In Higher Education** Catherine A. Palomba, Trudy W. Banta. This resource offers vital information on how to: develop plans and goals that are right for the needs of an individual campus, encourage involvement and support from students, faculty, alumni, and employers, select useful methods and approaches, use the most advantageous performance measures, develop tests and classroom assignments, and more.

**Coloring the Halls of Ivy: Leadership and Diversity in the Academy**, Editor, Josephine D. Davis. An honest personal look at the experiences of minority administrators at predominantly white academic institutions. The eleven contributors are academic administrators representing people of color who have faced challenges, crises and triumphs as leaders in their institutions.

**Discussion As A Way of Teaching: Tools and Techniques for Democratic Classrooms**, Stephen D. Brookfield and Robert Preskill. This book provides a model for this change. Written with the faculty member in mind, it responds to the questions of faculty who see the need for change, but are unsure of how to reach their goals. Tested and refined through long-term use and study, the model presented in this book shows how to move from concept to actualization, from theory to practice.

**New Directions for Higher Education: Enhancing Productivity: Administrative Instructional and Technological Strategies**, Editors: James E. Groccia, Judith E. Miller. This volume presents a number of options to university personnel wishing to explore and improve higher education productivity. Productivity approaches are considered at multiple levels of the institutional structure. The intent is to bring fresh ideas to the discussion of productivity in higher education in a concise format that is easily accessible to practitioners and administrators, without requiring a background in economics or finance. The first and biggest hurdle is to get all segments of the educational economy-students, faculty, institutions, and society- to understand the need for productivity improvement and for changes in the traditional institutional ways of doing business that will achieve it.

**Reflection in Learning & Professional Development: Theory and Practice**, Jennifer Moon. This book synthesizes the many theoretical origins of reflection and then builds on this background to present a clear road map of learning; a model that can be used practically in the classroom. With a high degree of background information and guidance, this book brings clarity to this diverse subject and will be an essential guide for all those who are seeking to use or develop reflection to improve learning.

**Reshaping Curricula**, Editors: Joyce Povlacs Lunde, Maurice Baker, Frederick H. Buelow, Laurie Schultz Hayes. This book describes a comprehensive revamping of program at three universities: Minnesota, Nebraska, and Wisconsin. Funded by W.K. Kellogg Foundation grant, the universities set out to reshape their curricula in agricultural sciences and natural resources. In 25 contributed essays by faculty from the three institutions, the authors describe the reform projects, their outcomes, and the resultant learning.

**Teaching for Quality Learning at University: What the Student Does**, John Biggs. Tackling the problems of how academics can improve their teaching in today's circumstances of large classes and diverse student populations. His approach is practical but not prescriptive. Teachers need to make decisions on teaching and assessment methods to suit their own circumstances. In order to do this they need a conceptual framework to inform their decision making. Such a framework is clearly described and exemplified by this book. University teachers can readily adapt the ideas here to their own subjects and teaching conditions.

**The Learning Revolution: The Challenge of Information Technology in the Academy**, Editors: Diana G. Oblinger, Sean C. Rush. Prominent education leaders offer accounts of current experiments and innovations using technology, as well as predictions of how technology will profoundly shape the future of higher education. As colleges and universities respond to pressing challenges, particularly those concerning productivity, quality, access, and competitiveness, they find new ways to use technology to create solutions. The fifteen essays in this book provide the reader with a full spectrum of ideas about technology's role in higher education, both in and beyond the classroom.

**All faculty may borrow any of our resources. Many other titles are also available.** ¾

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## OVERVIEW OF PREVIOUS WORKSHOPS

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### BEING A SUCCESSFUL GRADUATE STUDENT INSTRUCTOR

This series of workshops is intended to assist and prepare graduate students for their instructional assignments. It is required for current GSIs and voluntary for all other graduate students.

#### Establishing a positive classroom climate

Establishing and maintaining rapport with students is essential to a successful relationship, aids in learning, and helps reduce student anxiety. Learning students' names is an important first step. Further suggestions for establishing and maintaining rapport include: when you ask questions; pause before calling on anyone, take more than one answer from students, avoid stereotyping, provide prompt feedback, nonverbal encouragement, use positive reinforcement, maintain eye contact with students throughout the room, and keep constant tap on what is going on in class, how much they are learning.

Participants discussed how they can incorporate these suggestions into their own teaching. Role-playing and analysis of these techniques was done.

#### Giving laboratory presentations to orient students for lab set-ups of apparatus

A laboratory presentation to orient students for a lab set-up of apparatus should emphasize safety, how and why each piece of apparatus is used, and include tips learned from experience. The instructor should be very comfortable with the material to be presented. Handouts are helpful. Use of real life analogies help students to remember how and why the task is performed as it is. The set-up should be done slowly enough so that the students can actually observe how it is done.

Participants observed a poorly performed presentation. Students had to do the set up after this presentation then analyzed what should have been done differently and how they could help the students learn more. Finally students observed an excellent presentation that was analyzed to emphasize the good points.

#### How to observe and respond to common student behaviors in lab

Participants watched 3 short simulations of common student lab behavior and independently answered a series of questions concerning what they observed. Next they met in small groups to compare their answers and determine the reliability of their observations. After watching each scenario again, small groups reached a consensus on what transpired. Finally, the small groups, and then as a larger group, discussed what can be improved and what the instructor can do to improve student behaviors in lab.

Participants realized that it is difficult to accurately observe student behaviors, especially in a full lab setting. They determined many good ways for instructors to improve student behaviors.

#### Making pre-lab lecture a learning experience

Participants discussed and reflected on what makes an effective presentation and what their own strengths and weaknesses are concerning presentation skills. Stress management and the role preparedness plays in easing the stresses of presenting were also discussed. The attention span of students is about 15 minutes. If you will be speaking longer than that, the 15-minute interval is a good time to pause and allow your audience to digest or regroup the contents of the lecture.

Being a Successful Graduate Student Instructor, Making Pre-Lab Lecture a Learning Experience. (Continued)

#### Preparing an effective pre-lab lecture

- Determine objective for lab and pre-lab lecture
- Plan what you will say
- Organization of lecture
  - Introduction
  - Body of lecture
  - Conclusion - 2 minute recap
- Prepare lecture notes. ¾

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### OTHER WORKSHOPS

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#### GIVING CONSTRUCTIVE FEEDBACK TO STUDENTS

Principles of giving feedback include focusing feedback:

<u>on</u>	<u>rather than</u>
behavior	the person
observations	inferences
description	judgement
sharing of ideas, information	giving advice
alternatives	answers or solutions
specific situations	abstract situations
value to recipient	release for provider
what is said	why it is said

Negative, but constructive feedback may be an excellent stimulus for growth, provided it is given in a supportive environment.

In pairs, participants gave further explanations or examples of the principles of giving feedback. Next they watched tapes of students. Within a role play situation, they enacted giving feedback to the student they just observed on the tape and reflecting how it felt to receive this feedback. ¾

#### HOW STUDENTS LEARN: LEARNING STYLES

People learn in different ways. Learning styles are preferences or predispositions of individuals. Because of learning style differences, people perceive or process information in a particular way or combination of ways. Research indicates that the relationship between learning styles and teaching styles partially predicts success of students. Instructors should facilitate learning by adapting their teaching style to accommodate different types of learners. One commonly used taxonomy of learning styles is auditory, visual, and tactile/kinesthetic learners. Different types of instructional strategies meet the needs of different types of learners.

Participants discussed how specific course components can be made more adaptive to different learning styles.

**USP Teaching and Learning Center Schedule of Activities for Spring, 2000**

<b>Month</b>	<b>Date and Time</b>	<b>Activity</b>	<b>Topic</b>	<b>Discussants/Facilitators</b>
January	January 10 <sup>th</sup> from 4:00 - 5:00 pm	T <sup>6</sup> Table Talk Teaching Tips and Techniques	Fostering Critical Thinking	Rod Wigent, Laura Mandos, Elena Umland
	January 18 <sup>th</sup> From 12:00 -1:00 pm	T <sup>6</sup> Table Talk Teaching Tips and Techniques	Fostering Critical Thinking	Rod Wigent, Fran Mayville, R
	January 20 <sup>th</sup> From 12:00-1:30 pm	Being A Successful Graduate Student Instructor	Making pre-lab lecture a learning experience	Phyllis Blumberg, Kevin Wolba
	January 31 from 4:00 - 5:00 pm	T <sup>4</sup> :Table Talk, Teaching and Technology	How classes change when technology is used.	Sue Barker, Amy Kimchuck
February	Febraury 8 <sup>th</sup> from 12:00 -1:00 pm	T <sup>4</sup> :Table Talk, Teaching and Technology	How classes change when technology is used	Sue Barker, Amy Kimchuck, S
	February 14 <sup>th</sup> 4:00 - 5:00 pm	T <sup>6</sup> Table Talk Teaching Tips and Techniques	Supplemental Instruction (SI) Student Mentorship	Phyllis Blumberg, Gail Webste Frank Heilman
	February 22 <sup>nd</sup> from 12:00 -1:00 pm	T <sup>6</sup> Table Talk Teaching Tips and Techniques	Supplemental Instruction (SI) Student Mentorship	Phyllis Blumberg, Gail Webste Frank Heilman
	February 28 <sup>th</sup> 4:00 -5:00 pm	T <sup>4</sup> :Table Talk, Teaching and Technology	Using On-Line Testing	Andrew Peterson, TBA
March	March 7 <sup>th</sup> From 12:00 -1:00 pm	T <sup>4</sup> :Table Talk, Teaching and Technology	Using On-line Testing	Andrew Peterson, TBA
	March 20 <sup>th</sup> From 4:00 -5:00 pm	T <sup>6</sup> Table Talk Teaching Tips and Techniques	Fostering Critical Thinking and Problem Solving	Peter Miller, TBA
	March 23 <sup>rd</sup> From 12:00 - 1:30pm	Being a Successful Graduate Student Instructor	Handling Difficult Situations in Lab	Joe LaPrade, Kevin Wolbach Phyllis Blumberg
	March 28 <sup>th</sup> From 12:00 - 1:00 pm	T <sup>6</sup> Table Talk Teaching Tips and Techniques	Fostering Critical Thinking and Problem Solving	Peter Miller, TBA
April	April 3 <sup>rd</sup> From 4:00 -5:00 pm	T <sup>4</sup> :Table Talk, Teaching and Technology	How are on-line courses different from live courses.	Lili Velez, TBA
	April 11 <sup>th</sup> From 12:00 -1:00 pm	T <sup>4</sup> :Table Talk, Teaching and Technology	How are on-line courses different from live courses.	Lili Velez, TBA
	April 17 <sup>th</sup> From 4:00 -5:00 pm	T <sup>6</sup> Table Talk Teaching Tips and Techniques	Using Outcomes Assessment Problem Solving	Eric Boyce, Phyllis Blumberg
	April 25 <sup>th</sup> From 12:00 -1:00 pm	T <sup>6</sup> Table Talk Teaching Tips and Techniques	Using Outcomes Assessment Problem Solving	Eric Boyce, Phyllis Blumberg
May 17th	<b>Talking About Teaching Day</b>			
	9:00 -10:30 am	Workshops, Session 1	TBA	TBA
	10:45 am - 12:15 pm	Workshops, Session 2	TBA	TBA
	12:30 -1:30 pm	Luncheon and Discussion	TBA	TBA
	1:30-2:30pm	Round Table Discussions Session 1	TBA	TBA
	2:45 - 3:45 pm	Round Table Discussions Session 2	TBA	TBA
	4:00 -5:00 pm	Reception Fair and Poster Session Showcasing OWL Nominees and Faculty Research on Education	TBA	TBA

