

Teaching Matters

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

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Spring 2003

Learning Centered Teaching: Where we are and where are we going? By Phyllis Blumberg

Where we are: As a result of the strategic planning process, learning-centered teaching has been the focus of our educational development this past year. The Tactical Planning Group on Student Centered Learning and Living made specific recommendations for how we can create a culture of learning-centered teaching.

The first action step is that faculty will know what is learning-centered teaching and how to achieve it. We have made progress on this goal already. Many of the weekly TableTalks showcased examples of Learning-Centered Teaching that USP faculty have been implementing. Almost a dozen faculty are part of a faculty learning-community to explore more about learning-centered teaching and to incorporate it into their own teaching. Since August, 2002 we have experienced four full day workshops given by outside experts, Alan Wright, Barbara Millis, Maryellen Weimer, and Marilla Svincki. A more detailed summary of these workshops is contained in this newsletter.

Alan Wright emphasized that students need to take responsibility for their own learning. Faculty create learning environments for students to construct knowledge. Approaches to learning concentrate on how learning is processed and conceptualized. The goal is for students to have deep learning or learning with a meaning orientation. Assessment is an essential part of the learning process with self-assessment a key component.

Barbara Millis showed us powerful techniques for using groups to foster learning. Research indicates that students need to engage their preconceptions about how the world works to learn more. To develop competence in an area of inquiry, students need to have a deep knowledge that is grounded in a conceptual framework and organized in ways to foster retrieval and application. Teachers' roles are to

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Phyllis Blumberg, Ph.D., Director
The Teaching and Learning Center, WH 230
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) 895-1112
e-mail p.blumbe@usip.edu or m.raffer@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. The Teaching and Learning Center web page is www.usip.edu/teching

Learning Centered Teaching: Where we are and where are we going?

(continued from page 1)

assist in the acquisition of this kind of meta-cognitive approach.

Maryellen Weimer emphasized that for teaching to more effectively promote learning, instructional practice needs to change in five areas: the function of content, the role of the teacher, the responsibility for learning, the processes and purposes of evaluation and the balance of power. Content should be used to build knowledge and develop learning skills. The role of the teacher is to focus on student learning. Students need to be motivated to accept responsibility for their own learning. Evaluation should be used to promote learning, to develop student assessment skills in addition to grading students. Faculty share decision-making about learning with their students.

Marilla Svincki identified four critical aspects of learning-centered learning: prior knowledge, active, meaningful learning, motivated learning and self-regulated mindful learning. Learning-centered instruction should focus on beginning at a level that is appropriate to the learner. Learners need to organize new learning into a knowledge structure that they can understand and use; it cannot be given to them. Faculty should assist students to work toward goals that are consistent with their own goals. Learners should monitor and direct their learning with the instructor's support.

During the morning and lunch time of the annual **Talking about Teaching Day on May 8, 2003**, USP faculty will share learning-centered teaching practices and techniques from their own experience. Presenters will stretch our conceptions of what we think of as learning-centered teaching into new arenas and possibilities. All aspects of our educational programs can be included in learning-centered teaching as shown by the various workshops and posters. Understanding one's own approaches to learning and insights into how the learner processes information is an essential part of learning-centered teaching. Therefore, several workshops will concentrate on these aspects. Pat Peterson will allow pre-registered faculty to take the commonly used Myers-Briggs Personality Inventory and to learn how their own preferences influence how they teach. The nominees for the Leahy Award will also be featured in a poster session. While many of these nominations used learning-centered teaching, this is not a requirement for the Leahy Award.

Where are we going? We have been exposed to many different ideas and practices regarding learning-centered teaching. At this point in our thinking

and implementing we need to draw our collective thoughts together and strive to reach a campus-wide consensus on what is learning-centered teaching at USP. We will devote the **afternoon of the Talking about Teaching day** to a consensus conference. The purpose of this activity is to facilitate learning-centered teaching throughout USP. This consensus should describe the wide range of possible instructional practices within learning-centered teaching; it should define what it is and what it is not.

Consensus conferences have been used in health care for a long time. In fact, the NIH has been holding consensus conferences since 1977 to help clinicians reach a coherent statement on various health problems and diseases. During a consensus conference the panel of experts review the available evidence to support medically indicated interventions. As a result of each conference, the NIH disseminates a consensus statement that is based on the panel's assessment of the state of health knowledge available at the time of the conference.

All USP faculty and staff are the invited panel of experts to help us reach a consensus on learning centered teaching at USP. We will be using a learning-centered practice during the conference itself to give each participant as much voice as possible. To facilitate a consensus we will discuss the following questions:

- What are the key elements of a learning-centered philosophy?
- What is the relationship between active learning and learning centered teaching?
- What the characteristics of learning-centered teaching?
- What are characteristics of graduates of learning-centered institutions?
- How can the above be achieved, in a hypothetical college?
- How can we achieve the above?

Just as the NIH produces a consensus statement following each conference, the Teaching and Learning Center will develop a USP consensus position paper. The names of all participants who were involved with the discussion will be listed on this position paper. This position paper will be used for further planning purposes within USP. Therefore, it is very important that all interested people come to this consensus conference and express their views.

If you have any questions about the consensus conference or comments about learning – centered teaching, please direct them to me.

**Patricia Leahy Learning Innovations Award Nominations
2002-2003**

This award was established by Charlie Gibley in memory of Patricia Leahy, a PT faculty member here, to acknowledge faculty's innovative efforts to increase their students' learning. Faculty members' use of new instructional strategies typically require much planning time, a willingness to take risks, reflection on what is happening, and an ability to make changes when necessary. As the title implies, this award's emphasis is on innovations that increase student learning.

This year we have 6 excellent nominees for the Patricia Leahy Award, all of which are summarized here. These innovations will also be showcased during the poster session during lunch on Talking about Teaching Day, May 8, 2003. The authors will be available to answer questions from 12:45 – 1:30 on May 8, 2003. The Leahy winner will be announced at the Faculty Council Luncheon, June 5, 2003.

**The Benefits of Cooperative Learning, Peer Modeling and Email:
Improving the Success Rate of Weak ESL Students Enrolled in the Writing Proficiency Course**

Miriam Diaz-Gilbert

The goal of my Writing Proficiency course is to help students improve their chances to pass the Writing Proficiency exam (WPE). The majority are ESL students who have failed the WPE multiple times despite hours and semesters spent in the Writing Center with individual tutors. In addition, some students have not been allowed to graduate because they have not fulfilled the WPE requirement

Seven students enrolled in my summer 2002 course; six ESL students, three of whom were not allowed to graduate in May 2001 and May 2002, and one native speaker. To address the writing, critical thinking and grammar skills needs of the students in the most efficient and practical manner that would permit me to teach effectively, and provide the students with an environment conducive to learning, I integrated three learning approaches that would encourage active learning: cooperative learning, peer modeling and the use of email, without eliminating one-on-one sessions with each student. Integrating these approaches produced remarkable results. Six of the seven students (86%) fulfilled the WPE requirement at the end of the course, including the 3 students who had not been allowed to graduate at the end of their program.

Pam Kearney

OT 448: Rehabilitation Interventions is a required course for fourth year occupational therapy (OT) students. In this course students learn about intervention with clients experiencing physical and cognitive dysfunction due to disease or disability. A consistent struggle for this faculty member has been balancing content coverage with the need for students to synthesize new information with previously learned knowledge and apply this knowledge to OT practice. To facilitate this higher-level learning and make students more active in the learning process, a Team-Based Learning approach has been incorporated into OT 448.

Team-Based Learning is an approach based upon the belief that when the classroom environment is structured appropriately, groups of students can develop into effective learning teams. In order to create such an environment in OT 448, several changes were made to both course structure and activities. Course content was divided into defined modules. Learning activities were designed that not only fostered student responsibility for their own learning of specific course material but also created individual and team accountability. Assignments requiring group interaction, decision-making and problem solving were developed. Finally, students received frequent feedback on individual and team performance.

**Patricia Leahy Learning Innovations Award Nominations
2002-2003
(continued)**

Concept Mapping as a Learning Strategy

Peter Miller

Concept mapping was used as an implementation of a student-centered learning strategy in a 3rd year MPT course. There were two major goals: 1) promote deep learning of material over rote memorization, and 2) promote the development of collaboration in group work activity. Students produced concept maps both individually and in groups, and were assessed in both activities based on their ability to organize information, integrate new learning with previous knowledge, and to represent their knowledge in graphical form. On individual maps (done as a series of three over the course of the semester), students were able to demonstrate increasing sophistication of their knowledge structures, and on group maps, students were able to demonstrate a deep, connected understanding of the numerous elements involved in a clinical case problem. Student reaction to the usefulness and processes involved in concept mapping was overwhelmingly positive.

International Business Practice Firm Capstone Course for Pharmacy Marketing and Management majors

Glenn Rosenthal

During the 2002/2003 school year Pharmaceutical Marketing and Management Program students worked with the Occupational Therapy department to develop a company which would operate within a worldwide, internet based, virtual economy. Our company, Occupational Advantage, developed and sold its services to other colleges around the world as part of a program called the International Business Practice Firm program. Based in Germany, there are almost 3500 other colleges and institutions around the world that take part in the program.

Our goal was to market stress relief and ergonomic and safety design to other “companies” based on our ability to develop and market those services. This required that we set up and incorporate our company according to Pennsylvania law, obtain financing (that is, write a budget plan and understand the sources of obtaining funding) exactly as though we were a real company, and set up the company around four departments, Human Resources, Finance, Sales and Marketing and Purchasing. By December 2002, the company was set up and ready to begin operating.

Returning in January the next big challenge was to market the company’s services. We developed an Internet presence and other standard marketing pieces, which were then sent off to the other companies within the IBPF system around the world. Working with the OT department on campus was a wonderful experience for our students, as they had to learn to communicate with non-business people regarding marketing issues.

**Patricia Leahy Learning Innovations Award Nominations
2002-2003
(continued)**

Group Problem Solving Sessions in Recitation

Fred Schaefer and Madhu Mahalingam

Group problem solving sessions now form the basis of the recitations for General Chemistry I and II. Lecture sections are divided into recitation sections containing approximately 45 students each. During a typical meeting of a recitation section a question and answer period is followed by group work on problems developed by the course instructors. The problems posed to the groups are designed to require a group effort; any individual group member should typically not be able to solve the problem alone. Response to the innovation has been positive. The course instructors feel that all student benefit. Good students benefit from answering questions and explaining aspects of the problem to their peers while weaker student get their questions answered by their fellow students and see how others successfully approach problems. From the perspective of a course instructor, the sessions provide an excellent opportunity to observe the processes students use to solve problems and to discover misconceptions that can be addressed. Grades at the end of the first semester using this new approach indicate that the average to good (C and B) students benefit the most from the new approach. Peer interactions are a good motivator and provide an excellent opportunity for learning problem solving skills.

Action Oriented Learning: PS 402 (Counseling and Consultation Skills)

Ralph (Mac) Turner

PS 402 (Counseling and Consultation Skills) is designed to train health care students in patient interviewing and counseling skills. The structure of the course is unique and is exclusively student-centered. First, there is no syllabus. This is a different type of course and students must work on an adult level using interpersonal commitment and communication. There are no lectures. I do provide impromptu bursts of information to restimulate knowledge from previous courses on psychology, and I do provide knowledge on the skills required to do counseling and psychotherapy. Classes consist of students working in dyads, small groups and large group formats, videotape modeling of skills, role-play practice of interviewing and counseling, and direct practice with student-clients. There are no exams, papers or tests. Grading is structured in a student-centered and motivationally enhancing way. The focus is on behavior in interviewing. A contract is made with students based upon the premise that everyone starts with an A and that it is their responsibility to not earn a lower grade. Pre and post-videotaped interviews are used to determine amount of growth in skills. Grades are determined jointly from our review their growth, attendance, and the other students' ratings of their skill development.

Reading Day Wednesday April 30, 2003
Showcasing Civic Engagement and Service Learning at USP-
Rosenberger 102

All faculty, staff and administrators are invited

Civic engagement is one of the six strategic imperatives identified in the latest strategic planning cycle.

Plan for the day

8:30 – 8:45 coffee and light breakfast

Civic engagement and service learning in the health and social sciences

8:45 – 9:45 Service-learning models for pre-professional students
Scott Drab, University of Pittsburgh, College of Pharmacy

10:15 – 11:15 Small group discussions of we can do here in the health and social sciences

Plenary session: Diverse Applications of Civic engagement and service learning

11:15- 12:15 An overview on civic engagement and what others are doing nationally
and in Pennsylvania

James Birge, Executive Director of the Pa. Campus Compact

12:15- 1:30 Lunch and poster session showcasing all kinds of civic engagement and
Service-learning at USP

Civic engagement and service learning in the sciences and humanities

1:45- 2:45 Service-learning models for the sciences and humanities
Mac Given, Neumann College, Department of Biological Sciences

3:15 – 4:15 Small group discussions of we can do here in the sciences and the humanities

Registration Form

Please indicate which sessions you are coming to:

A.M. Civic engagement and service learning in the health sciences and social sciences _____

Plenary session _____

Lunch _____ (I have special dietary requirements _____)

I will bring a poster _____ relating to

P.M. Civic engagement and service learning in the sciences and the humanities _____

Please reply to Mary Rafferty Box 68 or m.raffer@usip.edu

TALKING ABOUT TEACHING DAY, THURSDAY MAY 8TH 2003

ALL FACULTY, STAFF AND ADMINISTRATORS ARE INVITED
REGISTRATION FORM

Please send your registrations to the Teaching and Learning Center, Box #68, or e-mail m.raffer@usip.edu

Name of Registrant (please print) _____

Department: _____ Box #: _____

e-mail: _____

Workshops

9:00 – 10:30 AM

Models of good learning-centered teaching practices

- 1) Journaling to develop reflective learning
S. Wainwright _____ WDL 111
- 2) Concept mapping to promote learning
P. Miller _____ WDL 107

How approaches to learning promote better learning
L. Peck and K. Quinn _____ WDL 116

Are our policies learning-centered?
P. Blumberg _____ WDL 115

Problematic pharmacy-related vocabulary and ESL students' false sense of word knowledge
M. Diaz-Gilbert _____ WDL 112

10:45 – 12:15

Models of good learning-centered teaching practices

- 3) Team-based learning in large and small classes
P. Kearney _____ WDL 116
- 4) Is learning-centered teaching possible in large classrooms?
A. Peterson _____ WDL 115
- 5) Simulations
G. Rosenthal _____ WDL 107
- 6) Service-learning as learning-centered teaching
R. Ideishi and
B. Hogan _____ WDL 112

Transition to college and building college success skills
S. Trump _____ WDL 111

Continued on the 3rd column

Luncheon and Poster Session

12:15 – 1:45 PM

WDL 119

Yes, I will attend the luncheon _____ and have the following dietary limitations:

No, unfortunately I am unable to attend luncheon. _____

Posters may be placed in room 119 after 11:00.

Authors will staff their posters from 12:45 – 1:30

Posters divided into:

- Leahy- submissions (many will be examples of learning-centered teaching)
- Examples of Learning centered teaching at USP

I would like to put up a poster showing my learning-centered teaching

Consensus Conference

10:45 – 12:30

Myers Briggs: Strategies for Insights into your teaching and your students
P. Peterson _____ WDL 110

Participants will take the Myers-Briggs Personality Inventory, score it, and find out about their own traits and what your personality traits mean for your own teaching and how you can use this information can be used to improve learning.

Pre-Registration is required for this workshop

2:00 – 4:45 PM

Consensus conference on What Learning Centered Teaching Means at USP

Participants will synthesize what they have been thinking about regarding learning-centered teaching into statements about philosophy, practices and characteristics of graduates that are appropriate for USP.

As a result of this consensus conference, a position paper will be produced. Names of participants will be listed on the position paper. This position paper will be used for further planning purposes.

WDL 107

The Document of Innovation in Teaching and Learning at the University of the Sciences

The Teaching and Learning Center of USP will produce the fourth annual document of educational innovations within the university. The aim of these innovations is to improve teaching and learning within our educational programs. This document is disseminated throughout the campus to give increased recognition to individual faculty who strive to improve teaching and learning within our educational programs. All faculty, including full time, part time or adjunct, graduate student instructors, and staff who do formal or informal teaching or supervising clinical experiences are eligible to submit a description of their innovation. Each innovation will be summarized in a one-two page standard abstract form below and available on the center's web page www.usip.edu/teaching/innovations.

More space can be used to describe aspects of the activity than shown on the form, these are specifications on what to include. The total abstract should fit on two letter-sized pages. Use 12-font size and a standard easy to read font. Faculty who submitted a nomination for the Leahy award in 2003 will automatically be included in this edition. Faculty who received Teaching and Learning Center grants will be encouraged to describe the innovation they implemented as a result of the grant. **Deadline for submission is May 17, 2003.** All submissions must be sent electronically or with a disk copy.

Innovations in Teaching and Learning at the University of the Sciences in Philadelphia 2002-2003 Submission form (limited to 2 pages)

Title of innovation _____

Name of innovator _____

Telephone number _____ email address _____

Department _____ Type of students _____

Type of course or activity where implemented: required _____ elective _____ core curriculum
Professional or advanced _____ other, _____ describe _____

Patricia Leahy Award for Learning Innovation submission: Yes ___ No ___

Course or activity where implemented _____

Describe rationale or goals of innovative educational activity: _____

Describe the innovation and its implementation: _____

Describe outcomes, especially learning outcomes, and impact of the innovation: _____

Reflect on what's working and why it is working: _____

Describe student reaction to the innovation: _____

Will innovation be sustained within the course? Yes ___ No ___

If yes, will you do anything differently? Describe _____

Will you implement this innovation in other courses? Yes ___ No ___
Describe:

Other comments:

Overview of Previous Workshops given by outside experts January 2003

A Focus on Learning Rethinking Effective Teaching Barbara Millis, The Air Force Academy

- Everyone can achieve more if teachers teach well
- Three research findings that have strong implications for how to teach
 - Students come to the classroom with preconceptions about discipline, we need to work from these ideas
 - To develop competence students must have a deep foundation of knowledge, understand ideas in a context, and organize knowledge to facilitate retrieval and application
 - By defining learning goals and monitoring progress in achieving these goals, students can learn to take control of their own learning
- Key elements that foster a deep approach to learning (learning for meaning, understanding)
 - Motivational context
 - Active learning
 - Interaction with others
 - A well structured knowledge base

Using the Power of Groups to Foster Student Learning in Small and Large Classes Barbara Millis, The Air Force Academy

- Begin slowly with cooperative/active learning
 - Always explain the structure of the activity before you give the students the task
 - Move from group to group to monitor progress
- Cooperative learning is
 - A structured form of small group problem solving
 - Incorporates the use of heterogeneous teams
 - Maintains individual accountability
 - Promotes positive interdependence
 - Instills group processing and sharpens social skills
- Examples of cooperative learning:
 - The three step interview
 - Roundtable
 - Structured problem-solving numbered heads together
 - Jigsaw

Promoting Learning in Large Classes: A look at both theory and practice Barbara Millis, The Air Force Academy

- People construct new knowledge and understanding based on what they already know and believe, this should be a starting point for new instruction
 - Conduct a background knowledge probe to review prior knowledge, determine starting point. Some examples include:
 - Directed paraphrasing
 - Application cards
 - Key principles and rethinking
 - The context of content needs to be activated before students receive ambiguous information for the most effective learning
- Encourage students to think about their own learning and thinking
- Depth of knowledge is produced, in part, by covering fewer topics in systematic and connected ways

Making Teaching Learner-Centered How to Implement Changes Successfully Maryellen Weimer, Berks Lehigh Valley College, Penn State University

- General principles for improving instructional practice
 - Get beyond techniques: think approach
 - Approach change systematically
 - Change incrementally
 - Make changes that fit the content, the instructor, the students and the learning context
 - Set realistic expectations for success
- Advice on implementing learner-centered approaches (not just techniques):
 - Study the new approach
 - Begin with deeper and more accurate self-knowledge
 - Develop a positive attitude toward assessment
 - Get specific, focused feedback
 - Assessment is ongoing
 - Learn how to overcome resistance

**Overview of Previous Workshops given by outside experts
January 2003
(continued)**

5 Key changes to practice to implement learner-centered teaching: Teaching that promotes learning

**Maryellen Weimer, Berks Lehigh Valley College,
Penn State University**

**From Weimer's book Learner-Centered Teaching.
Jossey-Bass, 2002**

For teaching to more effectively promote learning, instructional practice needs to change in five areas:

- The function of content
 - Content should be used to build knowledge and to develop learning skills and learner self-awareness
- The role of the teacher
 - Teachers should focus on student learning and not on teacher's actions
- The responsibility for learning
 - Together with students, faculty create environments that motivate students to accept responsibility for learning
- The process and purposes of evaluation
 - Evaluation activities should be used to promote learning, to develop self-and peer assessment skills and to determine grades
- The balance of power
 - In ethically responsible ways, faculty share decision-making about learning with students

How to evaluate students within a learner-centered class

**Assessing learning and giving grades
Maryellen Weimer, Berks Lehigh Valley College,
Penn State University**

- Rationale behind grades
 - To assess mastery of materials and skills
 - To promote learning
- We emphasize the importance of grades at the expense of learning
- Ways to maximize learning potential of evaluation activities, especially exams
 - Nest exams in a series of activities that promote learning
 - Develop activities that prepare students for exam, build confidence
 - Foster structured review activities
 - The exam itself
 - Allow students to prepare preparation aids, crib sheets that they submit along with the exam
 - Allow student to generate 1 question that they felt should have been asked, answer it
 - Opportunities for group testing, student constructed exams
 - Debriefing the exam is a time for great learning potential
 - Allow students to show evidence for contested answers
 - Discuss learning strategies and exam performance
- Feedback and learning
 - Make summative and formative evaluation distinctions
 - Separate commentary and grades
 - Cultivate self and peer assessment skills

Overview of Previous Workshops given by outside experts March 2003 (continued)

The Psychology of Learning

What is the learning behind learner-centered teaching?

Marilla Svinicki, the University of Texas at Austin

- What's learner-centered about learning?
 - Prior knowledge influences acquisition of new knowledge
 - Level of instruction should be just beyond where the learner is currently
 - Active, meaningful learning
 - Learning is better when the learner makes the connections.
 - Teachers should model active learning
 - Motivated learning
 - Learning is influenced by the learner's goals, motivation and emotions.
 - Intrinsic motivation is better
 - Learning is more efficient if the learner is in a non-anxious state
 - Self-regulated mindful learning
 - It is the learner who is responsible for and directing the learning
 - Must be able to identify what know, don't know
 - Faculty should create opportunities to
 - work with and go beyond prior knowledge
 - assess prior knowledge
 - confront common incorrect prior knowledge
 - use familiar to explain the new through metaphors and analogies
 - encourage active, meaningful learning
 - encourage learners to ask questions about their learning
 - collaborative learning helps
 - support motivated learning
 - increase learner-self-efficacy with appropriate formative feedback
 - emphasize comparison with self over comparison with others
 - work toward goals that the learner values by giving them choices and control
 - promote self-regulated learning
 - give students opportunities to make choices about their learning
 - build self-reflection, monitoring opportunities into assignments and class activities
 - when students work with others they can see different models of learning

What are the developmental tasks for students and faculty that need to accompany learner-centered teaching?

Marilla Svinicki, the University of Texas at Austin

- 3 kinds of developmental changes that need to accompany a learner-centered approach
 - epistemological beliefs about learning
 - constructed knowledge is better than received knowledge
 - structure of knowledge impacts on learning, retention
 - important for teacher to model learning
 - allow scaffolding through group work
 - sociological beliefs about roles in learning
 - student and teacher beliefs about their roles in learning are important
 - need to change roles of faculty, students
 - stop doing the learning tasks for the students
 - start designing more deliberately
 - give formative feedback more often
 - How do we support learner-directed learning?
 - Give opportunities for choice and control
 - Faculty and other students
 - Should model alternatives
 - Give assignments that are based on reflective questions and focusing on processes
 - Spend time regularly in class on reflection on learning
 - Learning is about the learner
 - The content, the instruction and the instructor are just supporting the learner