

TEACHING THAT PROMOTES LEARNING

Thesis: In order for teaching to more effectively promote learning, instructional practice needs to change in five areas.

1. The Role of the Teacher

Currently: Most instructional practice still features teacher action.

The Change: Instructional action should focus on students learning

Examples: approaches that overcome the propensity to tell – not “going over” the syllabus, how-to study advice

Implications: Facilitative roles are more difficult and no less central in student learning experiences

2. The Balance of Power

Currently: Faculty make the key decisions about learning for students.

The Change: In ethically responsible ways, faculty share decision-making about learning with students.

Examples: assignment choices and policy setting

Implication: Teachers control less, but students are involved more.

3. The Function of Content

Currently: Faculty cover content with the goal of build strong knowledge foundations.

The Change: Content should be used to build a knowledge base and to develop learning skills and learner self-awareness.

Examples: approaches that do not separate learning strategies from content – end of class summaries, exam review sessions

Implication: Teachers cover less, but student learn more.

4. The Responsibility for Learning

Currently: Faculty “force” learning on reluctant participants.

The Change: With students, faculty create learning environments that motivate students to accept responsibility for learning.

Examples: activities to create constructive classroom climates and let there be logical consequences

Implication: As students grow more autonomous, they need teachers less

5. The Processes and Purposes of Evaluation

Currently: Evaluation activities are grade-oriented and completed exclusively by teachers.

The Change: Evaluation activities should also be used to promote learning and to develop self- and peer assessment skills.

Examples: ways to use self- and peer assessment - participation

Implication: Accurate self- and peer assessment results in fewer arguments over grades

Content from: *Learner-Centered Teaching: Five Key Changes to Practice* by Maryellen Weimer.
Available from Jossey-Bass, 250 pages, \$33.00. To order online: www.josseybass.com

RELEVANT AND RECOMMENDED RESOURCES

Personal Reports of Faculty Experiences with each of the Learner-Centered Teaching Approaches

The Role of the Teacher

Black, K. A. "What to do When You Stop Lecturing: Become a Guide and a Resource." *Journal of Chemical Education*, 1993, 70 (2), 140-44.
--chemistry prof recounts his experiences completely redesigning his chemistry courses; insightful and reflective

The Balance of Power

Singham, M. . "Moving Away from the Authoritarian Classroom." *Change*, May/June 2005, pp. 51-57.
--sees the authoritarian language and structure of course syllabi as symptomatic of the breakdown of trust in the teacher-student relationship; describes his experience with a redesigned syllabus in a large physics course

Ludy, B. T. "Setting Course Goals: Privileges and Responsibilities." *Teaching of Psychology*, 2005, 32 (3), 146-149
--sees a possible role for students in setting course goals or in sharing goals with the instructor

The Function of Content

Finkel, D. L. *Teaching with Your Mouth Shut*. Portsmouth, NH: Boynton/Cook, 2000.
--excellent book, especially good on "using" content instead of "covering" it

Gregory, M., "Turning Water into Wine: Giving Remote Texts Full Flavor for the Audience of *Friends*." *College Teaching*, 2005, 53(3), 95-98.

Lewis, S. E., and Lewis, J. E. "Departing from Lectures: An Evaluation of a Peer-Led Guided Inquiry Alternative." *Journal of Chemical Education*, 2005, 82 (1), 135-139
--substituted one lecture per week with a guide-inquiry discussion and found covering less content did not result in less learning

The Responsibility for Learning

Grow, G. O. "Teaching Learners to Be Self-Directed." *Adult Education Quarterly*, 1991, 41 (3), 125-149
--proposes a developmental sequence that identifies stages in the process of assuming responsibility for learning

The Processes and Purposes of Evaluation

Deeter, L. "Incorporating Student Centered Learning Techniques into an Introductory Plant Identification Course." *NACTA Journal*, 2003, (June), 47-52.
--some especially creative assessment techniques that respond constructively to exam anxiety

Hiller, T. H., and Hietapelto, A. B. "Contract Grading: Encouraging Commitment to the Learning Process Through Voice in the Evaluation Process." *Journal of Management Education*, 2001, 25 (6), 660-684.
--tracks the evolution of a contract grading scheme across a four-year period with 473 students in 22 classes and at three different universities

Strong, B., Davis, M., and Hawks, V. "Self-Grading in Large General Education Classes: A Case Study." *College Teaching*, 2004, 52 (2), 52-57.
--compares a self-grading experiment with a semester of the course graded traditionally and found some positive benefits occurred when student self-graded

Implementation Issues

Felder, R. M. and Brent, R. "Navigating the Bumpy Road to Student-Centered Instruction." *College Teaching*, 1996, 44 (2), 43-47.
--best piece I've read that deals with student resistance to learner-centered approaches

Noel, T. W. "Lessons from the Learning Classroom." *Journal of Management Education*, 2004, 28 (2), 188-206.
--recounts first attempts to implement learner-centered approaches and explores why they failed

Paulson, D. R. "Active Learning and Cooperative Learning in the Organic Chemistry Lecture Class." *Journal of Chemical Education*, 1999, 76 (8), 1136-1140.
--especially good example of how the effects of learner-centered strategies can be assessed

Other General Resources

Bean, J. C. *Engaging Ideas: The Professor's Guide to Integrating Writing, Critical Thinking and Active Learning in the Classroom*. San Francisco: Jossey-Bass, 1996.
--super collection of strategies, applicable to and in many disciplines

Brookfield, S. D. *Becoming a Critically Reflective Teacher*. San Francisco: Jossey-Bass, 1995.
--in addition to introducing critical pedagogy ably, contains many personal experiences and reflections of his own growth and development

McNeal, A. P., and D'Avanzo, C. (eds.). *Student-Active Science: Models of Innovation in College Science Teaching*. Fort Worth, TX: Saunders College Publishing, 1997.
--some programmatic descriptions but lots of good chapters written by science faculty who are working with strategies that involve students in science courses

Spence, L. D. "The Case Against Teaching." *Change*, 2001, 33 (6), 11-19.
--a kick-in-the-butt piece that repositions teaching and learning

Good Places to Start in the Literature on Learning

Biggs, J. *Teaching for Quality Learning at University: What the Student Does*. Buckingham, England: Open University Press, 1999.
--excellent book that covers all aspects of instructional practice in terms of cognitive psychology research on learning

Biggs, J. "What the Student Does: Teaching for Enhanced Learning." *Higher Education Research & Development*, 1999, 18 (1), 57-75.
--a great condensation of the book above

Candy, P. C. *Self-Direction for Lifelong Learning*. San Francisco: Jossey-Bass, 1991.
--a great source, thorough, well-referenced, well-organized and easy to read

Gardiner, L. F. *Redesigning Higher Education: Producing Dramatic Gains in Student Learning*. ASHE-ERIC Higher Education Reports, Volume 23, No. 7. Washington, DC: ERIC Clearinghouse on Higher Education and the Association for the Study of Higher Education, 1994.

--brings together in one place an amazing collection of work on learning, very impressive overview of this vast literature, and makes sensible recommendations based on the literature

Horton, M. and Freire, P. *We Make the Road by Walking: Conversations on Education and Social Change*. Philadelphia: Temple University Press, 1990.

--well edited conversation between two important and innovative educational theorists

Prince, M. "Does Active Learning Work? A Review of the Research." *Journal of Engineering Education*, July 2004, 223-231.

--a comprehensive and compelling analysis of the impact of active learning experiences

Ramsden, P. (ed.). *Improving Learning: New Perspectives*. London: Kogan Page, 1988.

--another great collection that integrates and explores research on learning

Stage, F. K., Muller, P. A., Kinzie, J., and Simmons, A. *Creating Learner Centered Classrooms: What Does Learning Theory Have to Say?* ASHE-ERIC Higher Education Report Volume 26, No. 4. Washington, DC: ERIC Clearinghouse on Higher Education and the Association for the Study of Higher Education, 1998.

--super monograph that clearly and cogently writes about major educational theories; the best intro and overview of radical pedagogy and constructivism that I encountered

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