

General Teaching & Learning Resources

From the Teaching and Learning Lab's Website

General Info

<http://web.mit.edu/tll/teaching-materials/index.html>

Grading Rubrics

<http://web.mit.edu/tll/teaching-materials/rubrics/index.html>

[Guidelines on Learning that Inform Teaching at MIT](#)

Journal Articles

[Seven Principles for Good Practice in Undergraduate Education](#)

Arthur W. Chickering and Zelda F. Gamson From the March 1987 AAHE Bulletin

[What Makes Great Teachers Great?](#)

Ken Bain, Chronicle of Higher Education, April 9, 2004

[Learning by Doing](#)

Richard M. Felder and Rebecca Brent

Chemical Engineering Education, 37(4), 282-283 (2003).

[Interactive-engagement vs. traditional methods: A six-thousand-student survey of mechanics test data for introductory physics courses](#)

Richard R. Hake Am. J. Phys. 66(4) 338-352 (1998).

[Quick-thinks: The Interactive Lecture](#)

Susan Johnston and Jim Cooper Tomorrow's Professor, Message #818 adapted from: *the Cooperative Learning and College Teaching newsletter* 8(1) (Fall 1997).

["The Problem with Problems"](#)

Eric Mazur, *Optics and Photonics News*, 6, pp.59-60 (1996).

[Active Learning and Cooperative Learning in the Organic Chemistry Lecture Class](#)

Donald R. Paulson, *Journal of Chemical Education*, 76(11) 136 (1999).

"Teaching for Transfer" D. N. Perkins, Gavriel Salomon *Educational Leadership*, 46(1), 22 (1988).

"Are Cognitive Skills Context-Bound?"

D. N. Perkins, Gavriel Salomon, *Educational Researcher*, 18(1), 16 (1989).

Pedagogies of Engagement: Classroom-Based Practices

Karl A. Smith, Sheri D. Sheppard, David W. Johnson, Roger T. Johnson, *Journal of Engineering Education*, 87 January 2005.

[Assessing student learning of Newton's laws: The Force and Motion Conceptual Evaluation and the Evaluation of Active Learning Laboratory and Lecture Curricula](#)

Ronald K. Thornton, David R. Sokoloff *Am. J. Phys.*66(4) p. 338-352 (1998).

["Active-Learning Methods to Improve Student Performance and Scientific Interest in a Large Introductory Oceanography Course](#)

Richard F. Yuretich, Samia A. Khan, R. Mark Leckie, John J. Clement *Journal of Geoscience Education*, **649**, n. 2, p.111-119 (2001).

Ross, Philip E. ["The Expert Mind"](#)

Scientific American, (August 2006)

Texts

[Taxonomy of Educational Objectives: Cognitive Domain](#) Benjamin S. Bloom, Max D. Engelhart, Walker H. Hill, Edward J. Furst, and David R. Krathwohl. New York, Longman (1956).

[How People Learn: Brain, Mind, Experience, and School](#)

John D. Bransford, Ann L. Brown, and Rodney R. Cocking, ed. National Academy Press, Washington, D.C. (1999).

[The Teaching of Psychology. Essays in Honor of Wilbert J. McKeachie and Charles L. Brewer](#) Davis, S.F. and W. Buskist, eds. Lawrence Erlbaum Associates, Inc. (2002).

[Peer Instruction: A User's Manual](#)

Eric Mazur Prentice-Hall Series in Educational Innovation, Prentice-Hall, Inc. (1997).

McKeachie's Teaching Tips. Strategies, Research, and Theory for College and University Teachers

Wilbert J. McKeachie Houghton Mifflin Co. Eleventh Edition. (2002).

Transfer of Learning from a Modern Multidisciplinary Perspective

Jose P. Mestre, ed. a volume in: Current Perspectives on Cognition, Learning, and Instruction, J. M. Royer, series ed. Information Age Publishing, (2005).

"On Learning, Teaching and Learning Teaching" George M. Polya Chapter 14, in [Mathematical Discovery, Vol. 2](#) Wiley (1956).

[The Cognitive Style of PowerPoint](#)

Edward Tufte

Understanding by Design

Grant Wiggins & Jay McTighe Expanded 2nd edition.

Association for Supervision and Curriculum Development (2005).

Websites

[Carleton College website on interactive learning](#)

[Illinois State – Center for Teaching Learning & Technology](#)

[The Perils of PowerPoint – Message #663: Tomorrow’s Professor](#)

[The Gettysburg Address in PowerPoint](#)

Peter Norvig

A list of most of the prominent learning theories, with examples for each:

<http://tip.psychology.org/theories.html>

Video

[“Teaching Teaching and Understanding Understanding”](#) (a 19 minute short film)

Claus Brabrand,