**Research Articles**

Lessons Learned from Tutoring

Wood, W. B. and Tanner, K. D. (2012). [The Role of the Lecturer as Tutor: Doing What Effective Tutors Do in a Large Lecture Class.](http://www.lifescied.org/content/11/1/local/complete-issue.pdf) *CBE – Life Sciences* Edcuation, 11, 3-9.

Levels of Guidance w/ Simulations

Chi, M., Dohmen, I.M., Shemwell, J., Chin, D.B., Chase, C.C., & Schwartz, D.L. (2012). [Seeing the forest from the trees:  A comparison of two instructional models using contrasting cases.](Schwartz_%20comapare%20and%20contrast%20vs%20invent_AERA2012_ProjectileMotion_Invent_FINAL-1.doc)  Paper presented at American Educational Research Association Annual Conference, Vancouver, B.C.

Extraneous Details

**Mayer, R., Griffith, E., Jurkowitz, I. and Rothman, D (2008).** [Increased interestingness of extraneous details in a multimedia science presentation leads to decreased learning](extraneous%20details_Mayer.pdf)**, *Journal of Experimental Psychology: Applied*. 14, 329-339.**

Test-Enhanced Learning

Roedinger, H. and Karpicke, J. (2006). [Test-Enhanced Learning; Taking Memory Tests Improves Long-Term Retention](http://learninglab.psych.purdue.edu/downloads/2006_Roediger_Karpicke_PsychSci.pdf), *Psychological Science*, 17, 249-255.

Memory and Metamemory

Bjork, R. (1994). [*Memory and metamemory considerations in the training of human beings*](http://bjorklab.psych.ucla.edu/pubs/RBjork_1994a.pdf)  
**In Metacognition: Knowing about knowing, J. Metcalfe and A. Shimamura (Eds.), Cambridge, MA: MIT Press, 185-205.**

Learning Styles:

Pashler, H., McDaniel, M., Rohrer, D. and Bjork, R.(2008).[Learning Styles: Concepts and Evidence](file:///C:\Users\Wendy\Documents\My%20Dropbox\Classes\SCED%20441\Bjork_LearningStyles.pdf), *Psychological Science in the Public Interest,* 9, 106-119

Discovery Learning:

Mayer, R. (2004). [Should There Be a Three-Strikes Rule Against Pure Discovery Learning? The Case for Guided Methods of Instruction](file:///C:\Users\Wendy\Documents\My%20Dropbox\Classes\SCED%20441\Mayer_purediscover.pdf), *American Psychologist*, 59, 14-19.

Stereo-Type Threat

Steele, C. M. and Aronson, J. (1995) [Stereotype Threat and the Intellectual Test Performance of African Americans](http://gribouts.free.fr/psycho/menace%20du%20st%E9r%E9o/aronson%20et%20steele%20(sth%20princeps).pdf). *Journal of Personality and Social Psychology* 69, 797-811.

Spencer, S., Steele, C. and Quinn, D. (1999) [Stereotype Threat and Women’s Math Performance](http://www.leedsmet.ac.uk/carnegie/learning_resources/LAW_PGCHE/SteeleandQuinnStereotypeThreat.pdf). *Journal of Experimental Social Psychology, 35,*  4-28.

Mindset (talent vs. hard work):

Dweck, C. (2006) [Is Math a Gift? Beliefs That Put Females at Risk](file:///C:\Users\Wendy\Documents\My%20Dropbox\Classes\SCED%20441\cdweckmathgift.pdf), *Why aren’t more women in science? Top researchers debate the evidence. Washington, D.C. American Psychological Association.* 1-14

Effortful practice:

Ericsson, A. (2006). [The Influence of Experience and Deliberate Practice on the Development of Superior Expert Performance](file:///C:\Users\Wendy\Documents\My%20Dropbox\Classes\SCED%20441\Ericsson_CH38.pdf), The Cambridge Handbook of Expertise and Expert performance, Chapter 38, 683-703.

Peer Instruction (clickers):

Smith, M. K., Wood, W. B., Adams, W. K., Wieman, C., Knight, J. K., Guild, N. and Su, T. T. (2009) [Why Peer Discussion Improves Student Performance on In-Class Concept Questions](http://www.sciencemag.org/content/323/5910/122.full). *Science, 323*, 122-124.

Interactive Engagement measured by Concept Inventory

Hake, R. (1998).[Interactive-engagement vs traditional methods: A six-thousand student survey of mechanics test data for introductory physics courses.](C:\\Users\\Wendy\\Documents\\My Dropbox\\Classes\\SCED 441\\Hake.pdf)*American Journal of Physics*, 66, 64-74

Attitudes about beliefs about learning science

Adams, W. K., Perkins, K. K., Dubson, M., Finkelstein, N.D. and Wieman, C.E. (2006).[A new instrument for measuring student beliefs about physics and learning physics: the Colorado Learning Attitudes about Science Survey](http://www.colorado.edu/sei/class/CLASS%20I.pdf)*Physical Review, Special Topics - Physics Education Research*, *2,*010101, 1-14.

Problem Solving

Mayer, R and Wittrock, M. (2006) [Problem Solving](file:///C:\Users\Wendy\Documents\My%20Dropbox\Classes\SCED%20441\Mayer_PS_2006.pdf), *Handbook of educational psychology*, *chapter 13* 287-303.

**Rubric**

25 Summary (1-2 page single spaced summary of the study and the results)

25 Critique (unlimited pages: Do the conclusions come directly from the data? Did they measure all the things you’d like to see measured? Were they consistent? Could they have been clearer in their writing? Etc…)

10 Readability (would you have made it through if it wasn’t an assignment?)

15 Apply to teaching (In general and do you plan to use these ideas)

25 Presentation (15 minutes presenting over view with data either as handouts or powerpoint so that classmates understand the study and results of your article)