Improving Student Learning with (almost) No Grading

Have you ever had the experience where you read a journal article and had trouble summarizing the main points? Or, perhaps you and your department went to a lecture by a visiting scholar but you couldn't remember what was said during that lecture. There is often a gap between hearing or reading and making sense of the information that was seen or heard. Students struggle with these same tasks. However, research indicates that students who are interested in their task and those who have high self-efficacy tend to process information better than those who do not have high self-efficacy and interest levels (Dweck & Leggett, 1988). In addition, students that use metacognitive learning strategies (like how to take good notes during a lecture and how to read for understanding), have higher learning outcomes than students that do not use those strategies (Nett, et al. 2012). In short, strategies allowing students to know what they know (as well as what they don't know) and those that help students become appropriately self-confident are linked to improved student learning. Here are three strategies that may assist our students in becoming better learners while not burying us in grading:

- *Wrappers for Metacognition* – A wrapper is an activity that "wraps" a homework assignment or other learning task in or out of the classroom and cultivates students' metacognition. Wrappers require students to stop and take a moment to self-monitor. According to Marsha Lovett at Carnegie Melon University, the process is as follows:
  1. Instructor creates self-assessment questions that focus on skills students should be monitoring;
  2. Students answer questions just before completing their homework;
  3. Complete homework as usual; and
  4. After completing their homework, students answer similar self-assessment questions and draw their own conclusions.

  For more, go to Lovett, M. (2008).*Teaching Metacognition*. Presentation to the Educause Learning Initiative Annual Meeting, January, 29, 2008.

- *Test reflection* – How often have you turned back an exam, and students look at the grade, what they got wrong, and called it a day? A self-reflection after an exam helps students understand why they performed as they did. If students perform poorly, what could they do differently for the next exam? If students are forced to stop and think about the exam, they have greater potential to change their practice in the future. Typically, exam reflections may include expected grade, actual grade, hours spent studying, % of time preparing for the test reading the textbook, doing practice problems, memorizing terms, reviewing notes, etc., % of points lost from careless mistakes, not knowing facts, not understanding concepts, not being able to apply concepts, etc., and, perhaps most importantly, a description of what students would do differently in preparing for their next exam based on their responses to reflection prompts.

  For more, go to Reflection #1 , Metacognition Activities, from *On the Cutting Edge*.

- *Considering the Brain as a Muscle* – Research indicates that students who are interested in their task and those who have high self-efficacy tend to process information better (including increased use of active learning strategies) than those who do not (e.g., Dweck & Legget, 1988). Ask students, "What are your main strengths as learners? How will these strengths help you in this class?" In addition, consider espousing the belief that the brain is (metaphorically) a muscle. By "working out," one can increase the strength of this muscle. What do students struggle with? How can they improve? Be careful to correct fixed notions of intelligence and attribute student successes to effort rather than inherent ability.
  For more on this concept, read: Dweck, C. S., & Leggett, E. L. (1988). A social-cognitive approach to motivation and personality, *Psychological Review, 95*, 256–273.

Resources:

Ertmer, P.A. & Newby, T.J., (1996). The expert learner: Strategic, self-regulated, and reflective. *Instructional Science, 24*, 1–24.

Lovett, M.C. (2008). *Teaching metacognition*. Paper presented at the annual EDUCAUSE meeting, Orlando, FL.

Nett, U. E., Goetz, T., Hall, N. C., & Frenzel, A. C. (2012). Metacognition and test performance: An experience sampling analysis of students' learning behavior. *Education Research International*, 1-16.

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