

Three Active Learning Strategies That Push Students Beyond Memorization

THOSE WHO TEACH in the health disciplines expect their students to retain and apply every iota of learned material. However, many students come to us having achieved academic success by memorizing the content, regurgitating that information onto an exam, and promptly forgetting a good portion of it. In health, as well as other disciplines where new material builds upon the material from the previous semesters, it is critical for students to retain what they learn throughout their coursework and as they begin their careers as a nurse, engineer, elementary teacher, etc.

So, how do we get students to retain this knowledge? Here are three active learning strategies for pushing students beyond simple memorization.

1. Case Studies and Simulations - Forsgren, Christensen, and Hedemalm (2014) found that case studies stimulate the student's own thinking and reflection, both individually and in groups. Through reflection, the student gains a broader view, increased understanding, knowledge, and deeper learning. Case studies are a form of problem-based learning that encourage the student to think critically and apply "book knowledge" to everyday practice and problems that will occur in the workplace. A literature review reveals very little research on using case studies in fields other than health, law, and business. However, case studies could certainly be written for any field of study.

Many other methods of assisting with knowledge retention come from healthcare fields but can easily be adapted to other majors. Simulation—whether high-tech as in mannequins or low-tech as in role play—is a good method to help the student apply knowledge to real world scenarios.

- 2. Concept Maps Concept maps are graphical tools for organizing and representing knowledge and can be used to help students visualize connections between words and concepts. The first step is defining a focus question or problem which the student then internalizes a strategy for defining and clarifying (Eberly Center for Teaching Excellence, 2014). Concept maps using real world situations can help reinforce key ideas by encouraging students to think both creatively and analytically about previously learned information and apply it to new scenarios.
- 3. One-Minute Papers A classic among active learning techniques, the one-minute paper remains a simple yet effective way to gauge student learning. I use these papers as an assessment of my own teaching efficacy but more importantly to get students to reflect on what went on in the classroom that day. My questions are all open-ended so as to encourage reflection and feedback on the subject matter. Possible prompts for a one-minute paper, include:
 - The clearest point of today's class was:
 - The muddiest point of today's class (or something that confused me or I want clarified) was:
 - How I prepared for class today: What I liked best that helped me learn:
 - What I wish had been discussed during today's class:

In summary, we all know that lecturing is not the most effective manner of teaching, any more than cramming is an effective form of learning. Active learning strategies such as these move students from passive to active participation in their learning; boosting retention in the process. As an added bonus, these methods fit well in the flipped learning environment that many instructors are using today.

References:

Eberly Center for Teaching Excellence. Whys and hows of assessment. Carnegie Mellon. Retrieved May 14, 2014, from http://www.cmu.edu/teaching/assessment/ howto/assesslearning/conceptmaps.html

Forsgren, S., Christensen, T., & Hedemalm, A. (2014). Evaluation of the case method in nursing education. *Nurse Education in Practice.* 14, 164-169.

Sydney Fulbright, PhD, MSN, RN, CNOR, is an associate professor in the College of Health Sciences at the University of Arkansas – Fort Smith.

Syndey Fulbright; Effective Teaching Strategies; Three Active Learning Strategies That Push Students Beyond Memorization; Faculty Focus; July 9, 2014 [http:// www.facultyfocus.com/articles/effective-teachingstrategies/three-active-learning-strategies-pushstudents-beyond-memorization/] July 29, 2014

Summer 2 - Classes End - Aug 7 Exams - Aug 11 All Grades Due - Aug 13 Graduation Day - Aug 15 Faculty Expo - Aug 21, 22 & 29

WHITE BOARD

2013-2014 Publication Dates First Monday of the Month

September 2	March 3
October 7	April 7
November 4	May 5
December 2	June 2
January 6	July 7
February 3	August 4

Newsletters Archive HERE

Center for Effective Undergraduate Teaching Carnel Learning Center, Suite106. Phone: 388-8426

sheet with items such as how to contact

them, prior experience in the subject,

learning style, and any questions they had

about the syllabus or me. Though the sheet

did not solicit feedback on my reading, a few

students commented (positively) on it and a

much larger percentage than usual included

comments on the sheet that were more "big

picture," more "why" than "how," such as

wanting to know what motivates my teaching

and choice of field, or offering a bit more

than usual about their own backgrounds

and aspirations. Another student made it a

point to find my office and stop by for a brief

chat, which rarely happens on the first day.

I have no hard proof, but I suspect that this

opening day reading helped set a tone that

encouraged this broader openness and that it

will inspire me and my students to maintain

that tone throughout the term.

Opening Intentions for the First Day of Class

I WAS THE INVITED outside speaker at a professional development event for schoolteachers. The day's lunch was preceded by a public prayer that inspired me to consider parallels in "callings to serve" that can be found in both education and religion. Sometime later, I happened to read a poem in a Jewish prayer book that expressed noble intentions for a worship space. The poem didn't reference a particular faith—it was really just a set of intentions. Immediately, I thought of what professors hope for in their classroom spaces.

Without reopening any debate on prayer in public school, I'll say that I don't think any of us would object to a list of intentions that call forth a mindfulness that echoes the values embedded in our institution's statements of mission, vision, and code of conduct. Nor should there be anything wrong with reminding ourselves and our students that a course is about so much more than students getting grades and teachers getting paychecks.

Inspired by the poem, I drafted an extended set of intentions tailored to the classroom with the idea that it could be used by any college teacher. To underscore how professors and students share responsibility, the intention starts by expressing what I ask of (or for) myself before moving on to what I hope for from my students. At the first meeting of two of my classes this fall, I started class by reading it and then continued with my usual first-day agenda of course policies and overview, more aware than usual of whether I was staying true to my opening words.

As I usually do during the first week of class, I had students turn in an information

I'd now like to share with you what I debuted this semester:

Though I've taught this material many times, a source of struggle. may I be open to fresh ways of making connections, May the 45 hours in this room add up to knowledge that yields sharing the passion that brought me to this field. wisdom, and seeing how each year's students extend my learning and may the wisdom lead to more capacity to improve our by their backgrounds and beliefs, their questions and answers. world. So may you have the courage to ask your questions, Together, may we use the time we have in this room trusting me to respect any sincere contribution as a creative, intentional, supportive learning community: (usually shared silently by others), knowing that the worst outcome May the door of this classroom be wide enough is simply my offer to discuss it later. to receive all who seek understanding. And may you also be willing to offer answers, May the door of this classroom be narrow enough knowing that class dialogue is enriched by multiple methods to keep out fear or closed-mindedness. and points of view, May its threshold be no stumbling block and that exploring even incomplete answers yields insight for to those whose knowledge-or language-is shaky. all. May the window of this classroom inspire us to connect our learning to the world beyond these walls. May you be curious and open to how this course may count And may this classroom be, for all who enter, in life a doorway to growth and purpose. Welcome! —beyond a degree plan—even if this kind of course has been

While retaining copyright for the above poem, the author gladly grants faculty permission to read it in class to students. This set of intentions (especially the last section) was inspired by Sydney Greenberg's "May the door. . ." in R. Elyse D. Frishman (Ed.), Mishkan T'filah: A Reform Siddur: weekdays, Shabbat, festivals, and other occasions of public worship, p. 6. New York: Central Conference of American Rabbis Press, 2007.

Dr. Lawrence M. Lesser directs the Center for Excellence in Teaching and Learning (CETaL) at The University of Texas at El Paso. Reprinted from Opening Intentions. The Teaching Professor, 24.9 (2010): 4. © Magna Publications. All rights reserved