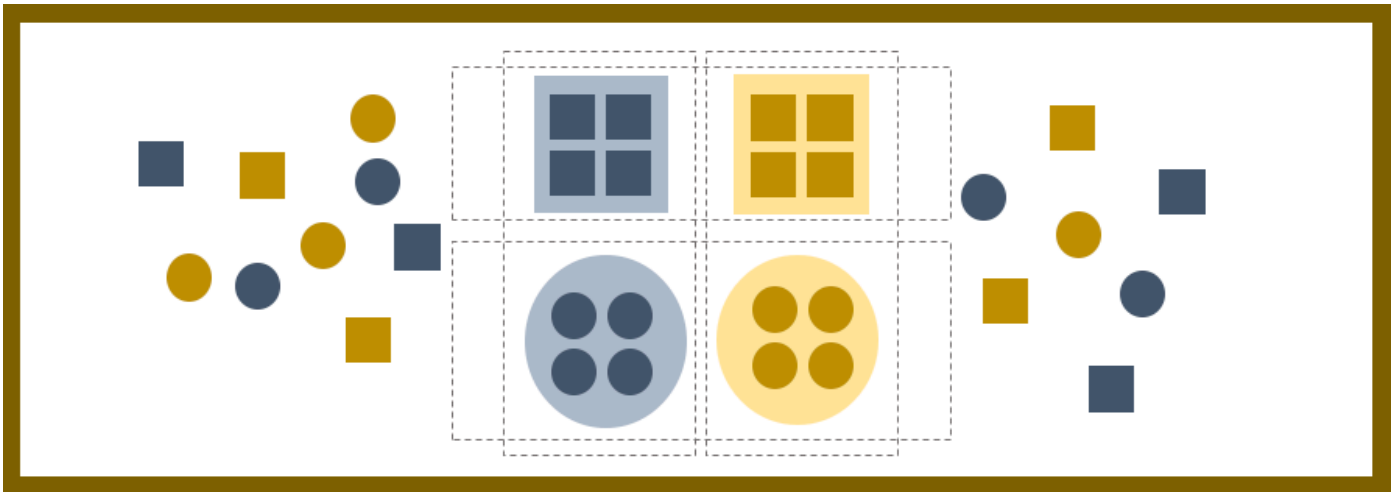
CETL Weekly Teaching Tips presents

Creating Lectures as Effective Learning Experience



Lectures enjoy a long and venerable history in academia. Lectures persist because they can be both efficient (reaching large numbers of students at once) and effective teaching methods when they are designed and delivered well. Many instructors complain that students don't attend lectures and are inattentive during lectures. However, students will be motivated to attend and participate if the lecture experience is a *learning experience.*

Reflect on what happens in your lectures. Do students *learn during* the lecture or does most learning happen when they review their notes outside of class? Do students experience and interact with course content differently when they attend a lecture? Or is the lecture experience largely another way to read the text? Many students see no value in reading the text if the same content appears in lectures, and students may not attend lectures if the same content appears in the posted notes or Power Point slides. Lectures should be opportunities for learning that rely on but are different from the learning students can accomplish on their own by studying the text or reviewing posted class notes.

What makes a lecture an effective learning experience?

deWinstanely and Bjork (2002) discuss cognitive principles that underlie significant learning experiences. These include distributed practice, focused attention, retrieval practice, and engagement in deep processing, in which students organize information in logical structures and connect new information to prior knowledge and personal experience. Include these elements in lectures to transform them from mere content dissemination to learning experiences.

Written by Claudia J. Stanny, University of West Florida. Designed by Christina Moore. Published March 2018.

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Distribute practice with key concepts to ensure students connect multiple ideas presented within lectures and ideas presented across multiple lectures. Textbooks tend to organize topics in chapters and consolidate ideas most closely tied to one topic in a single chapter. Instructors see this organization as an efficient way to present information. We already know how ideas in multiple chapters relate to each other, but our students do not. Lectures that adhere to the same block presentation of ideas used in the readings will not help students connect ideas across chapters. This approach encourages a "silo and dump after the test" approach to learning. Be intentional and talk about how ideas in the current lecture relate to ideas and skills students encounter in other parts of the class and in other classes.

Discuss key ideas in multiple contexts to show how ideas relate to one another and encourage students to engage in elaborate, variable encoding. A one-and-done approach to lecturing (discuss an idea once and move on) encourages students to encode ideas as isolated facts. Isolated memories are fragile and easily forgotten. In contrast, interconnected webs of memories endure. Deliberate repetition of key ideas in the context of new ideas and new topics reinforces the interconnectedness of content knowledge. The different contexts created by spaced repetitions increases encoding variability. When students think about key ideas in multiple contexts created by this repetition, they encode multiple retrieval cues for key ideas. Redundant retrieval paths protect memories from retrieval lapses.

Create structure to highlight the way new information is organized and connect new and old information. Provide a list of key topics, an outline, a "minimalist" Power Point slides (key headings and subheadings only), or a concept map to guide students. Supporting materials should not include so many details that students imagine they can substitute them for class attendance. Tell students how to use these materials to take effective notes during class (Stanny, 2016).

Effective lectures engage students with course content that extends beyond what students might learn by reading an assigned text. Students do not learn just by hearing something. Students will be motivated to come to class if class activities create strategies and opportunities to help them learn. Thus, a lecture that merely paraphrases the assigned reading will not be as effective for learning as a lecture that creates opportunities for students to think deeply about course content, practice retrieving key ideas, integrate them with prior knowledge and personal experience, and experience disciplinary content not found in the text book. Use ***elaborative interrogation*** questions to prompt class discussions that require students to think about course concepts and make predictions about outcomes or use disciplinary criteria to evaluate an argument.

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Resources

deWinstanley, P. A., & Bjork, R. A. (2002). Successful lecturing: presenting information in ways that engage effective processing. *New Directions for Teaching and Learning, 89,* 19-31. doi:10.1002/tl.44

Stanny, C. J. (2016). To post or not to post: what are the consequences of posting PowerPoint slides for student learning? In *Teaching Tips from CUTLA: Favorite teaching tips from 2006-2016.* Center for University Teaching, Learning, and Assessment, University of West Florida, Pensacola, FL. [CC BY-NC-ND 4.0] [Available on the CUTLA web site: http://uwf.edu/offices/cutla/teaching-tips/best-of-teaching-tips-/]

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