

Active Learning Video Transcript

Under the more traditional lecture-based model, the role of the student is a passive one, and the assumption is that they are engaged in what we call ‘active listening’.

Overall, the lecture is an effective way to provide students with information they are expected to ‘know’ and ‘remember’. However, whether students integrate the information and successfully consolidate it so that it becomes part of their existing mental schemas is another question.

Schemas are the organizational structures we have of concepts, or how we make sense of information. The addition of new information leads to a disruption of existing schemas as previous assumptions and experiences are tested. The old schema makes way for change as new information becomes part of the existing schema.

Converting new information into meaningful knowledge and promoting higher order thinking in line with Bloom’s Taxonomy’s Cognitive Domain requires more than a passive approach to teaching and learning.

It requires conditions that make students learn more deeply by ‘doing’ and lessons that employ mixed pedagogies- integrating instructor guidance with student-centered collaborative activities. This is the essence of active learning- a pedagogy that has proven effective across disciplines.

There are many activities that can be used in the classroom to get students learning by doing. These activities require students to interact with the learning content, each other and you, the Instructor, in a variety of ways, such as informal or guided discussions, collaborative problem-solving activities, critical exploration tasks, hands-on experimentation, authentic discipline-based tasks, and simulations, to name a few.

These sorts of activities help students move beyond recall and application to promote higher order thinking such as, synthesis, evaluation, inquiry, and creation. Recall and comprehension are essential but, even more important, is guiding student learning with active involvement so that students build capacity to integrate and consolidate the course content and move from surface to deep learning.

The research tells us that these intellectual efforts lead to persistent, deep changes to the neural networks of the brain because more synaptic connections are formed. The greater the effort, the more connections are made, so those neural pathways can grow and persist.

The latest research shows that active learning is also a more inclusive pedagogical approach that addresses the needs of students who are often under-served by traditional pedagogical models. Active Learning uses an eclectic approach and is better suited to serving a more diverse student population.

Two major studies point to the benefits of active learning for students. In the 2014 landmark meta-analysis comparing the effects of classroom lectures with active learning, Freeman et al. found that active learning increases student performance in science, engineering and mathematics.

In particular, the findings indicated that “average examination scores improved by about 6% in active learning sections and that students in classes with traditional lecturing were 1.5 times more likely to fail than were students in classes with active learning” (Freeman et al., 2014, p 8410). A 2010 study by Bunce, Flens and Neiles looked at student attention in college classrooms.

Using a self-reporting tool, students indicated the first lapse in attention occurred as early as 30 seconds with the next occurring approximately 4 to 5 minutes into class. The lapses occurred with increasing frequency throughout the lecture suggesting that students’ attention sees diminishing returns from the moment the lecture begins.

However, the authors found that for courses with mixed pedagogies there were fewer and shorter lapses in

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attention as self-reported by the students.

These two studies, in addition to mounting evidence in the field, suggest that varying pedagogical approaches in the classroom has a positive impact on student learning.