



When students engage actively with material, they generally understand it better and remember it longer. This approach also highlights the distinction between simply covering material and students actively building understanding. Providing students opportunities to reflect upon, evaluate, discuss, and apply lecture concepts throughout a session help students create important linkages during class. Over thirty years of research point to active learning as one of the most powerful methods for encouraging higher-order thinking and academic achievement.

The traditional lecture is an inherently passive approach to learning, as students are asked to simply receive knowledge.

Research on undergraduate and medical student lectures indicates that student attention and note-taking drop dramatically after the first 10-20 minutes of a live classroom lecture or 6-9 minutes of a recorded, online lecture. (Stuart & Rutherford, 1978 and Szpunar, 2013)

This tipsheet provides strategies for developing interactivity and supporting active learning in the classroom. They may be employed individually or with various groups of students throughout a live class session. These may be used to structure class time when students have engaged with lecture material prior to the session, as in a flipped classroom format, or as active learning techniques interspersed within a lecture or presentation. For the latter approach, we recommend incorporating one of these strategies at 6-18 minute intervals throughout the session.

Strategies for Application

- 1 Choose one of your lectures. List the concepts, outcomes, or principles that have the highest priority. Which "big ideas" should students remember one year from now?
- 2 Divide the presentation into "chunks", noting points at which some type of activity can be inserted – at least one every 6-18 mins. Try to align these activity points with the key concepts identified above.
- 3 Develop activities to fit each key concept. For each activity, determine the best way for students to participate. Refer to the strategies on the following page for some ideas.
- 4 Plan to provide ample feedback to students before proceeding, so they can hear and share possible answers.

Interactive Learning Strategies for Individual Students

1

One Sentence Summary

Students are asked to provide a summary sentence about the topic at hand. This may be cold call, volunteer or small group discussion.

2

Three-Minute Pause

During a lesson, students are given a chance to reflect on concepts, make connections, or seek clarification from a peer or the instructor.

Interactive Learning Strategies for Pairs or Small Groups

3

Jigsaw

Students are grouped and assigned one aspect of a particular problem, dataset, experiment or reading. The jigsaw comes from combining various assignments at the end of the activity to reveal a larger solution.

4

Lecture Reaction

Divide the class into groups. *Questioners*: ask questions related to the material, *Appliers*: provide real world examples, *Contrarians*: counter main lecture points, and *Supporters*: explain what they agreed with, found helpful.

5

Learning Cells (Think Pair Share)

Students are given a problem and spend 1-2 minutes thinking about the problem alone. Then, 3-5 minutes discussing the problem with another student. Finally, the instructor asks each learning cell to report out to the class.

6

Notes Exchange

Students are asked to exchange and compare their lecture notes—sharing insights about how they chose to organize the material or highlight important points.

Interactive Learning Strategies for the Whole Room

7

Concept Map

Use Post-Its™ or an online graphic organizer for groups of students to diagram and organize relationships among concepts. Visit text2mindmap.com for an online example.

8

Debate

The instructor chooses a controversial topic. Students are arranged in debate teams based on a pro or con position. Have the groups caucus separately to develop their positions before the debate begins. Students must develop and present logical, compelling arguments to support their position.

9

Misconception Check

Present the class with a common misconception about a topic and facilitate a discussion following their reactions.

10

Live Polling

Tools such as clickers provide instructors with real-time feedback about students' understanding in a large class. This approach includes the entire class in the learning process and makes responses visible.

11

Discussion Leaders

Students take turns leading discussion for the class or a small group on a given topic. Discussion leaders may be assigned on the spot or in advance at the start of the term.

12

Muddiest Point

Ask, "What was the 'muddiest point?'" or be more specific, asking, "What do you find unclear about the concept of ___?" Students can answer verbally to the whole class, in small groups, or in an online form for easy archiving.

