

## Strategy: Engaging Students in Lectures

Lecturing can lead to passive students. These tips shift students from passive to engaged during lectures.

## Origin

Twenty Ways to Make Lectures More Participatory. (2010). Retrieved from <http://isites.harvard.edu/fs/html/icb.topic58474/TFTlectures.html>.

Connor, P. Enhance Your Lectures: Make them More Active. Retrieved from <http://teaching.colostate.edu/tips/tip.cfm?tipid=90>.

Connor, P. Stop it! You're Killing Me! Retooling Your Lecture. Retrieved from <http://teaching.colostate.edu/tips/tip.cfm?tipid=11>.

## Application

### Twenty Ways To Make Lectures More Participatory

1. Begin the course with a question or questions that help you understand what students are thinking about the topic.
2. Pose a problem related to the lecture topic and elicit several answers or solutions from the students.
3. Ask students to reveal their assumptions about the lecture topic by answering a short question and then sharing their answers in a small group: "List up to 10 types of" or "Identify kinds of data needed for " or "List the steps in", etc.
4. Create an opportunity for student participation through your verbal and non-verbal cues.
5. Consider calling students by name, or at least making eye contact directly, if you want students to participate.
6. Invite challenges to your ideas and/or, when possible, present multiple points of view on a topic and invite students to take a position.
7. When a student asks a question, ask another student to answer it rather than answering it yourself.
8. Ask questions throughout the lecture to engage students. Consider having them raise their hands to answer rather than having to answer directly and/or asking questions that have more than one correct answer.
9. Pause in lecture after making a key point. Use a multiple-choice question to review the material. Have students vote on the correct answer and then work with their neighbors to discuss the question. Then poll students again and see that more have arrived at the correct answer.
10. If readings have been assigned, refer to them directly.
11. When using slides, handouts, etc., ask students to describe them as they see them. "As an investigator with this data, what would you want to know? What does this data tell you? What would you explore? What kinds of questions can you answer and how?"
12. Invite groups of students to present information or participate in role play or debate.
13. Use the room for debate. Have students physically move to a side of the room that signifies their position on an issue.
14. Introduce case studies and, if possible, use the case study to organize the entire lecture.
15. Stop the lecture and ask students to write for 1-2 minutes in response to a question. Then consider posing that question for discussion.

16. Have students work in small groups and then have a representative from each group present to the class.
17. Allow time for questions at the end of the lecture.
18. End the lecture with a provocative question that may be answered by an upcoming assignment, lab, reading, etc.
19. End the lecture with a one-question quiz based on the material. Leave the room briefly and allow students to discuss their answer. Return to the room and have students report and discuss their answer.
20. Do a one-minute paper at the end of the class asking students to consider the main point of the class and the main question they still have as they leave.

### **Lecture formats (for a 50- minute class)**

#### “Periodic Pauses” Format

- 12-15 minutes: Lecture
- 2 minute pause: Students work in pairs to review, discuss, and revise notes
- Repeat: 2-3 times
- Last 3 minutes: Have students write down everything they can recall from the lecture

#### “Immediate Test” Format

- Deliver lecture
- Give a short test at the end of each lecture

#### “Feedback” Lecture

- Before class: Students do “study questions”
- First 20 minutes: Lecture
- Next 10 minutes: Small groups discuss teacher-provided, lecture-related questions
- Next 20 minutes: More lecture

#### “Guided” Lecture

- First 30 minutes: Just lecture. Students take no notes.
- Next 5 minutes: Students take notes on what they remember
- Last 15 minutes: Small groups discuss teacher-provided question related to lecture

### **Lecture Techniques**

Q: Does your lecture include opportunities for in-class:

- Group problem-building
- Group problem-solving
- Group trouble-shooting
- Group brainstorming
- Reflection
- Question generating

<b>Reflection</b>
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- How does this compare to what you are already doing?
- Which of these strategies can you include in your course?