

Large Classes: A Teaching Guide: Lecturing

The formal lecture is among the oldest teaching methods and has been widely used in higher education for centuries. Potential benefits of a good lecture include

Presenting analyses and showing relationships between dissimilar ideas

Modeling the thought-processes and problem-solving of a creative, intelligent person

Summarizing and presenting an overview of a topic, which can set the stage for reading and further discussion

Supplementing and expanding the knowledge presented in a textbook or other source of information

Inspiring and motivating students to learn about a topic or subject matter

Synthesizing, evaluating, and discussing information presented

Tailoring the presentation of information to a particular group of students

While a lecture may benefit students in these and other ways, lecturing alone cannot ensure that students become active learners. Many of us have been taught by lecture and view it as safer, easier, and more reliable than other methods of instruction. Using lectures in combination with other kinds of instruction, such as discussion and cooperative learning, can increase their effectiveness

Generally speaking, qualities of an effective lecturer are

A good knowledge base

An enthusiasm for the discipline (not necessarily a "performer")

Techniques for engaging students in active learning

Preparing the Course Content and Lectures

What are the fundamental concepts and/or knowledge that students are expected to gain from this course

Most large lecture courses are introductory courses meant to provide an overview of a discipline that can help first and second-year students select a major field. Your department probably expects that its introductory courses familiarize prospective majors with the concepts and information they will need to do upper-level work. Knowing what your department expects the course to accomplish can help you focus your preparations for the course and each lecture. You might ask colleagues for course descriptions and old syllabi; departmental advisers can provide an overview of the undergraduate program

What are your students' experiences and background with the subject matter

Knowing the goals of the course is one important factor in developing lectures. Making the lectures relevant and interesting to students can aid their learning of the material. Some instructors give students broad questionnaires asking about their background in the subject as a diagnostic tool at the beginning of the semester. The information from the questionnaires can also be used to tailor your presentation of course material

What is the relationship between the lectures and other course materials

Lectures should do more than repeat the information presented in the textbook. Instead, they should illustrate the textbook's concepts using real-world examples; prepare or follow-up on class discussions, lab sections or readings to provide up-to-date information or thought on a theory; or present conflicting interpretations of a subject. Lectures can also be used to provoke students to think beyond simply "getting the facts" and to engage in the higher-order skills of critical thinking. Lectures also provide a forum for you to share your knowledge and training with your students by modeling a solution to a problem, illustrating a point with your own research, or demonstrating aloud how to analyze a text or problem. After offering such demonstrations a few times, students can practice it on their own or in groups.

Organizing the Lecture

What are the four or five main points the lecture should convey

A strength of lectures is their ability to present a great deal of information. It is important to remember, however, that information that seems basic to an experienced scholar may be new to students in an introductory course. A recent study duplicated this experience for faculty members by having them take courses in disciplines completely different from their home discipline.

One professor wrote at the conclusion of the course:

"It seemed to me during these lectures that I lacked any framework of prior knowledge, experience or intuition that could have helped me order the information I was receiving. I had no way of telling what was important and what was not. I had difficulty distinguishing between what was being communicated to me merely for purpose of illustration or analogy. I could not tell whether I understood or not. Students in introductory courses face this same obstacle and need the lecturer to help them focus on the four or five main points. Emphasizing these points, providing several examples, and repeating them throughout the lecture help students determine what information is most important."

Do your lecture notes include "stage directions"?

Teaching a large lecture class has been compared to performing for an audience. Smaller class settings provide more room to improvise and adapt a lesson plan during a class. In the large class, however, having a clear vision of where you need to be, when to cue technology, and how long each segment should take is essential for keeping the class moving and the "audience" engaged in the lesson.

If you're using technology, do you have a Plan B just in case

Technology--overhead projectors, slides, films, computer displays--can enhance instruction if they are well-integrated with the class plan. Even if you've tested the equipment prior to class, things sometimes go wrong: a light bulb burns out, the power fails, a film breaks. When using technology, always have a plan B. Will you dismiss students and reschedule the film for another day, or will you summarize the film or deliver the next week's lecture

Presenting Information

How will you begin your lecture

The way a lecture begins can capture students' attention and emphasize the main point of the day. Try posing a problem or using a piece of poetry; a quotation, a current event, opinions, statistics, or anecdotes can also be used to engage students. Peter Frederick sometimes poses a problem at the beginning of a lecture which he then answers gradually throughout the course of the lecture. The answer

to the problem becomes clear by the end of class, as does the process used to solve it. A variation is to pause before providing the solution and to ask students to make a guess or discuss it with classmates.

What activities and "energy shifts" are planned

Studies of student attention span indicate that most students "tune out" of a lecture after 20 minutes even if they are taking notes. To combat this problem, an "energy shift"--changing of activities and pacing of the class--is recommended every 15 to 20 minutes. Such shifts might include a demonstration, opening the floor of the class up for discussion, asking a rhetorical question and pausing for an answer, or asking students to review the main points of the day.

What activities will you use to reach students with different learning styles

One recent "hot topic" in higher education has been the different ways in which students learn. People have different preferences for processing new information. Some students prefer to learn by listening, others like visual representations, and still others learn by doing. Most lectures heavily favor those students who prefer listening so it is important to devise ways of presenting information that can appeal to learners with other preferences. Possibilities include demonstrations, role plays, discussions, simulations, problem-solving, real-world applications, or multi-media. By incorporating a variety of presentations into your lectures you can alter the pace as well as increase the chance that a different activity will clarify a point or a concept for students who may not be as strong in one particular style.

What materials will you use in giving the lecture

Diagrams, graphs, outlines, slides and films can contribute much to the lecture but it is important to consider whether the technology you use is visible and audible to all students. Before class begins, place an overhead on the projector and check if it is visible from all parts of the room. If it is hard to discern part of a diagram or model, you may consider putting it on a handout instead of having students copy it for themselves. An OSU faculty member uses two overhead projectors--one to display the outline of the lecture and the second for the current point

Delivering the Lecture

Are the main points or outline of the lecture written on the overhead or blackboard? Are students aware of the focus of the day's lecture

Various methods can help keep students focused by providing a "map" of the lecture. Using the blackboard or an overhead projector to highlight a lecture's main points can help students take effective notes. Announcing the focus and objectives of the day's class at the beginning of the hour can help them determine which parts of the lecture are the most important. Another way to facilitate note taking is to list new terms, names, and references on the syllabus, the board or handouts.

Are student contributions encouraged and integrated into the lecture

Many instructors would like students to participate more in the lecture by asking questions or making comments but need to find ways to overcome the reticence large classes can instill. Positive responses to questions, e.g., "That's a good question" or "I'm glad you asked that", show students you are open to questions will not be "shoot them down" in front of the class. You can also encourage students to ask questions by integrating their remarks into the lecture, e.g., "And that gets back to the Susan's point" or "That's a great question--it leads us to the next topic."

Are you familiar enough with the lecture plan to deliver it without reading

Knowing the material and lecture plan for your class well allows you to focus on the reaction of your audience. Such familiarity enhances your delivery of the lecture since you can focus on your audience and not on your notes.

Can students following you comfortably or are they scribbling madly? Can every student see and hear you

A common complaint about large classes noted on student evaluations is that lectures move too quickly. In the large-class setting, most students are reluctant to volunteer that the pace is too fast. Therefore, it is up to you to allow students to give you feedback on the lecture's pace. Observe what the students are doing--if they're scribbling madly rather than looking at you, you might slow things down. Periodically throughout the lecture, you might ask students which points they would like repeated or explained again. Questions can also be a way of pausing in the lecture and allowing students to "catch up" in their notes and in following the lecture.

Encouraging Active Learning

Is the material related to the students' experiences and/or background

Student interest can be heightened and comprehension of the class material enhanced when examples and materials relate to the experiences and background of your particular audience.

How can students demonstrate their involvement in the class

Taking notes is one way that students demonstrate their involvement in the class. Other techniques that help keep students involved include taking an informal vote on an issue or presenting a multiple choice question on the topic and ask students to choose the correct answer. Cooperative learning techniques, such as "buzz groups," are described in the section on collaborative learning (page 17). Peter Frederick has developed the "participatory lecture," orderly brainstorming in which students are asked to generate ideas and share their knowledge on a topic. Frederick describes this technique in detail in his article, "The Lively Lecture: Eight Variations," available in CTE's Resource Packet on Lectures.

What opportunities do you have to get feedback from students

Numerous ways exist to get feedback on how your students are following your lecture. Several activities provide feedback and writing practice are described in the sections on Writing in Lectures, Giving Students Feedback, and Improving Teaching through Student Feedback. Other suggestions include

Collecting several students' notebooks to get a sampling of how they're understanding the lectures .
Having a question-answer box, in which students can deposit questions(described in more detail in the Personalizing the Large Class

Having students write complete one-minute papers (see Writing in Lectures)

Asking students to generate a test item based on the day's lecture

Asking at the end of class, "What points would you like me to repeat or clarify' or "Would you like additional information or explanations of anything we've discussed today?" instead of "Are there any questions?"

For more information on Lectures, see CTE's Resource Packet on Lectures. For more information on Active Learning, see P. Frederick, "Student Involvement: Active Learning in Large Classes" in the References section.