Thriving in Academe

REFLECTIONS ON HELPING STUDENTS LEARN

Engaging Students through Interactive Lecturing

Getting students to actively engage in their learning can be a challenge. Some faculty favor active learning to promote engagement, while others stand firm in their preference for lectures. How can we capitalize on interactive lecturing as a pedagogy of engagement?
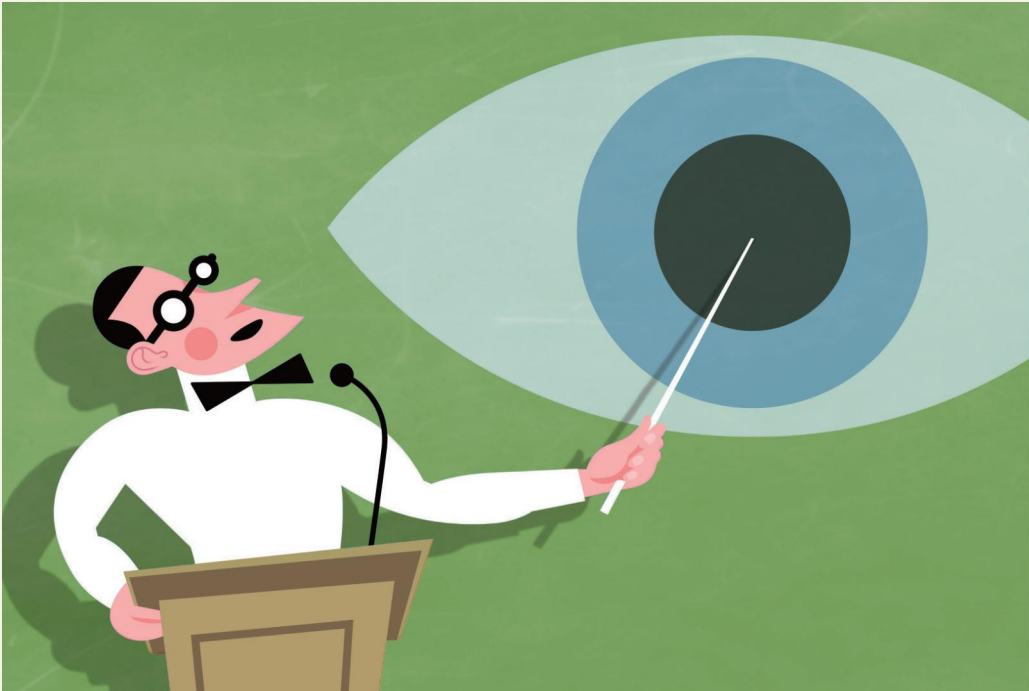
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Students face many demands for their attention, so getting them to actively engage in their learning can be a challenge. The pedagogies we choose, however, can help. Each instructional method has its merits, and also its features that detract from student learning.

Lectures, for example, can help faculty accomplish several goals—from presenting information students can't otherwise access to synthesizing information to communicating enthusiasm. However, lectures also present some challenges to student engagement: It can be challenging for students to maintain full attention during long lectures; students may not be effective active listeners, or well-developed note-takers; and students can be tempted to task switch or "multitask."

Active learning likewise can help faculty accomplish several goals, including improving classroom climate, providing opportunities to apply content, and creating space for reflection on learning. But these activities also present challenges that can interfere with student learning. These include: students can be resistant to active learning, and they may not understand the goal of an active learning actiivty and thus may not know how to center their attention and efforts. The learning environment can become noisy and distracting. And, additionally, students may not fully grasp what they have learned, detracting from their ability to self-regulate and reflect.

How do we choose the best pedagogy for engaging students in their learning?

Meet Claire Howell Major

Claire Howell Major is professor of higher education at the University of Alabama. With nearly three decades in higher education, she has taught across institutional types, including at a large urban community college, a two-year historically Black college and university, a two-year technical institution, a public 4-year university, and a large research university. She has authored and co-authored nine books, 30 journal articles, and six book chapters. A popular keynote speaker and workshop presenter, she and her co-authors Elizabeth F. Barkley and K. Patricia Cross have written four bestselling handbooks for college faculty published by Wiley/Jossey-Bass as the College Teaching Techniques series.

Interactive Lecturing: Where the Twain Meet

In what has become a divisive scholarly discussion about the use of lectures and active learning in higher education, we have somehow cast these two pedagogies in opposition. Educators argue for either lecture or active learning. Researchers study the effectiveness of lecture versus the effectiveness of active learning. The problem with such constructs is that they are artificial. Lecture and active learning need not oppose each other. Indeed many, if not most, faculty use a combination of both and are not particularly bothered by the question of whether they are lecturing or using active learning. Most researchers who study these methods, rather than comparing 100 percent lecture to 100 percent active learning, typically compare learning in lecture-only courses to lecture in lecture-and-active-learning courses; most have documented that the latter approach is more effective. We need not be pedagogical purists, engaged in a zero-sum game.

Interactive lecturing is a process for combining engaging lecture segments with selected active learning methods. This form simultaneously accounts for both what the instructor does to teach and what the students do to learn. It focuses on uniting and blending lectures and active learning into a seamless whole. The approach is useful for faculty who want or need to lecture but also aim to do more than transmit information. It allows instructors to help students engage in a structured and supportive learning environment that ensures they are active participants before, during, and after the lecture. The goal of interactive lecturing is

■ TALES FROM REAL LIFE > THE TEACHER TURNED LEARNER

Over the years, I have attended some wonderful lectures—intellectually stimulating and engaging. However, I recently attended one that was decidedly not. I arrived on time, after lunch, and was seated in the back row. The speaker dimmed the lights, turned on a slideshow, and began reading the very tiny slide text in a low, monotone voice. I confess: I slipped out the back door.

I have also had some rich active learning experiences, working with peers to accomplish more than I ever could alone—and some the opposite. At a recent event, I visited stations to learn about a teaching method. At the "discovery learning" station, I found a needle, cork, magnet, and bowl of water. No instructions. No learning goals. I lacked sufficient prior knowledge to have any inkling of the task (to build a compass, it turns out). I was irked, particularly at the instructor who refused to offer even minimal guidance.

I believe that both lectures and active learning methods have something to offer learners, and I understand that the experiences I've described were flawed by design. But that knowledge didn't make those experiences any better for me as a learner. What I have come to in my own teaching is a combination of lecturing and active learning.

to harness the dynamics of active lecturing to support learning in lectures.

Doing interactive lecturing well requires crafting lecture presentations that engage students. The goal is to spark curiosity and maintain it throughout the lecture, speak with enthusiasm and expertise, respect learners, share information in a well-organized, logical format, and conclude in a way that learners feel satisfied. Following are some suggestions.

FIND A CENTRAL FOCUS. Lectures that have a clear central focus have been documented to improve student learning. For an engaging presentation, set two or three clear goals for learning, and generate content specifically to support those goals. Avoid excessive details that can distract students from the most important points. In addition, consider how you will know whether students have understood the central focus and the key information from the lecture.

HAVE A CLEAR FORMAT. Lectures that are clear and organized have been shown to help students learn. For an engaging presentation, choose a recognized structure, such as a narrative or a most-to-least important point approach. In addition, use high-impact language, such as "the first issue I will discuss," "the second issue I will discuss," and so forth. This will help students follow your message effectively and efficiently.

USE AUDIO-VISUALS AND HANDOUTS. Slide decks have become standard fare in lecture courses, both onsite and online. Research

shows that although students report that they enjoy slides, slide decks are not necessary for learning, and bad slides with too many details or distracting images can detract from learning. Use audiovisuals that support the presentation and make it more impactful, whether you choose slides, props, flipcharts, white boards, or other.

LECTURE AND ACTIVE LEARNING **NEED NOT BE IN OPPOSITION** TO EACH OTHER.

CREATE A SUPPORTIVE CLASSROOM CLIMATE. A supportive learning environment can improve student engagement in their learning. Climate is largely determined by the psychosocial relationships between and among the instructor and the students. To ensure an engaging presentation with a supportive climate, prepare adequately, work to generate enthusiasm and interest in learning ahead of the class session, set ground rules for participation, find strategies for helping students get to know each other and ensuring mutual understanding and respect, and actively manage the class session.

ENSURE CLEAR COMMUNICATION DURING THE PRESENTATION. The very title "professor" implies that communication is an important responsibility for college faculty. Effective instructor communication with students is critical to their engagement and satisfaction.

Yet faculty members often are not trained in professional verbal or non-verbal communication. For an engaging presentation, draw on professional tips for speaking, such as modulating and projecting your voice. Be intentional about taking questions, such as by asking students to think or write down questions before asking them. Wrap up the session in a way that summarizes and synthesizes salient points and signals closure.

Beyond striving for engaging presentations, those who choose interactive lecturing also should strive to make intentional use of active learning activities that can best support learning in lectures. The goal is to scaffold sophisticated learning strategies, encourage learners to seek deeper meaning, help them develop conceptual understanding, encourage them to use self-regulatory and metacognitive strategies, and foster their curiosity, interest, and enthusiasm. Following are some suggestions for using active learning techniques to support learning in lectures.

USE ACTIVE LEARNING TECHNIQUES TO HELP STUDENTS PREPARE. Research suggests that engaging students prior to presenting new information can improve students' learning from the lecture. Such preparation makes learning during lectures more efficient and effective, as it provides students with the necessary background to understand new information; students frequently come to their studies lacking sufficient knowledge or even with misconceptions. Use active learning techniques to ensure that students prepare for a lecture by studying ahead,

■ **BEST PRACTICES** > WHAT DOES INTERACTIVE LECTURING LOOK LIKE?

Following are suggestions for active learning techniques (ALTs), adapted from *Interactive Lecturing: A Handbook for College Faculty.*

**Opening Bookends** comes before a lecture segment and helps students recall prior learning. In ALT 3, Update Your Classmate, students write to a real or fictional student who missed class a day earlier to describe the missed information and explain its importance to the upcoming lecture.

Overlays are used during a presentation to focus students' attention. In ALT 13, Guided Notes, the instructor distributes a set of incomplete notes that students complete during the lecture.

Interleaves occur between lectures and provide time to process and apply information. In ALT 19, Think-Pair-Share, students consider a question related to the lecture; pair; and then share. In ALT 21, Thick and Thin Questions, students write down two types of questions about the content.

Closing Bookends. In ALT 31, Lecture Wrapper, students write what they think were the three most important ideas; for comparison, instructors may reveal what they thought were the most important points.
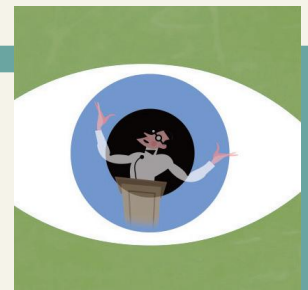
accessing what they have learned so that they can build upon it, and using that knowledge to anticipate content.

USE ACTIVE LEARNING TECHNIQUES TO HELP STUDENTS PAY ATTENTION. Clearly students who are attentive during a lecture will learn more. Researchers who have examined the kinds of activities that help students pay attention during a lecture have found several strategies to be effective. In particular, use shorter lecture segments of about 15 minutes each. In addition, provide guidance on note taking and ask questions frequently to help students pay attention and listen actively.

USE ACTIVE LEARNING TECHNIQUES SO STUDENTS APPLY INFORMATION. The time between lecture segments can be used to provide students with opportunities to apply the information they just gained. Applying content, ideas, and information from lectures in ways that give it significance through rehearsal or application improves learning in lectures. Approaches such as discussion, problem-solving, peer teaching, and other techniques help students apply what they have learned to new situations and contexts.

USE ACTIVE LEARNING TECHNIQUES TO HAVE STUDENTS SELF-ASSESS THEIR UNDERSTANDING. Researchers have examined the relationship between self-assessment and reflection and student learning. Research on quizzes and their influence on retrieval, retention, and transfer, as well as research on the influence of metacognitive activities such as reflection, suggests that these are useful active learning approaches to support lecture learning. Use active learning techniques to help improve meta-cognition and self-regulation. Useful approaches include learning logs, journals, and sentence stems or other prompts for self-reflection on learning.

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■ ISSUES TO CONSIDER

ARE THEY ENGAGED?

Even when using the best possible instructional designs, it's hard to know just how engaged students are at a given moment. Moreover, it can be particularly difficult to distinguish between compliance, where students do what they believe necessary to win a good grade or avoid a bad one, and authentic engagement, where they see a learning task as valuable and meaningful and truly strive to grapple with it. I suggest keeping the following questions in mind to gauge student engagement.

- **Do student behaviors signal authentic engagement?** Consider answers to the following questions: Do they attend class and arrive on time? Do they signal attention to you and to each other? Do they ask questions? Do they participate in class activities? Is it evident that they prepare for class and study for exams?

- **Do student attitudes signal authentic engagement?** If students are engaged attitudinally, they will demonstrate positive affective or emotional reactions to learning. Consider answers to the following: Do they demonstrate interest and satisfaction that signal their willingness to engage and participate? Do they appear to be curious, enthusiastic, and confident during lectures and active learning activities?

- **Do student cognitive approaches signal authentic engagement?** To gauge this type of engagement, consider your answers to the following: Do students strive to comprehend complex information they are hearing or exchanging? Do they critique it and formulate questions about it? Do they link new information to previously learned concepts? Do they link new information to their personal lives or to current events? Do they exceed stated requirements of a task or assignment? Do they self-assess to gauge their own understanding? Do they consider not only what they are learning but also how and how well they are learning?

Monitoring student engagement and adjusting accordingly is an ongoing task. Ultimately the most important indicator of whether students have actively engaged is their learning. Meaningfully assessing student achievement of the intended learning goals can provide a good indication of how active and engaged in their learning students have been.