THE POWER OF EFFECTIVE LECTURING

A Teaching Resource from the Walker Center for Teaching and Learning

TIRED OF GLAZED EYES?

UTC Faculty share their tips for making lectures more interactive, engaging, and just more fun.

This resource offers suggestions on
(1) how to lecture more effectively
(2) knowing when to take evasive action
(3) how to break up a lecture
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I. HOW TO LECTURE MORE EFFECTIVELY
**Start with a Question:** When I’m lecturing, particularly in my introductory courses, I try to start out with a question. Sometimes the question is something that I write on the board or include as a slide in my PowerPoint presentation. Sometimes, it’s as simple as putting an image up on the slide and letting the class walk me through the image as a group. When they’ve gone as far as they can go with describing what they see, I will ask a leading question that can be used to set up the lecture. At other times, I use an activity to introduce the topic/question.

**Discussion-like Lectures:** I try to make my lectures interactive and more like a discussion than a lecture. The PowerPoint slides are there with the images that I cannot draw and a few key words/a key sentence that helps me to stay on-topic and act as visual cues throughout the lecture. When I’m in a room that allows it, I walk around the classroom while I talk or as the students are doing an activity.

**Clicker Questions as Transition:** I try to have at least one or two opportunities for a think-pair-share activity that gets the students talking to each other about the material. In my introductory course, I’ve started to use clicker questions at the end of a section to demonstrate that we’re moving onto the next subtopic in the lecture and to check-in with them to determine whether they understood what was just covered.

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**Meet the Faculty**

**Ashley Manning-Berg**
Biology, Geology, and Environmental Science

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Walker Center for Teaching and Learning
Lecturing More Effectively

The Dreaded PowerPoint

I'd like to comment on the use of something that many academics hate: PowerPoint presentations. I use them extensively in my lecture courses; they're just about de rigueur for technical conferences. I started using them when I first taught in the Fall of 2001. At the time I felt that the primary purpose was to enhance the learning experience of the students. Today my view has changed.

Purpose: The purpose of the slides is to (a) allow the students to see my lecture notes, (b) allow my students to actually read what I'm putting down rather than having to read my deficient handwriting, and (c) prevent me from having a senior moment and skipping an important topic. It also allows me to document methods and information not found in the textbook, and in my case that's extensive.

My Website: When I started using PowerPoints, my department head suggested that I make them available online after the lecture. That was before UTC had a way of accommodating this, so I used my own website, and that is still the case. Other academics have looked at these, and one asked me to send him the entire set! This is very helpful.
DON WARRINGTON’S POWERPOINT POINTERS

- **Clear and Simple:** Keep the PowerPoints clear and simple, with large fonts and easy to read color schemes. (That's something I hammer into my students for their Capstone presentations.)

- **Pacing PowerPoints:** This is tricky. For conferences, I try the one per minute rule, but for class I go longer with them. If they go too fast the comprehension goes with them; if they're too slow, you run the risk of boring the students, but I'd rather take that chance.

- **Go Off Subject:** Don't be afraid to get off the subject or even get ahead of your presentation if you feel the urge to do so. That means that you should not put up a presentation that requires "wall to wall" for time.

- **Use Lots of Images:** Be generous with photos and diagrams in the presentation. That's a big advantage of PowerPoint presentations; short of a lot of handouts, that's a good way of communicating them to the class.
There are several techniques I use to make lecturing more effective. I like to walk about the room and make big gestures! I always use PowerPoint because it keeps me on track and I embed videos and website links, which suits the visual learners. I also get the students up and moving often and I try to "keep the main thing the main thing." Keeping new concepts to 2-3 per class can allow for more depth of topic and decrease students becoming overwhelmed.

A Good Resource: All lectures are not created equal. So what are the types of lecture? I point you to the book by Claire Howell, Michael Harris, and Todd Zakrajsek, Teaching for Learning: 101 Intentionally Designed Educational Activities to Put Students on the Path to Success (New York: Routledge, 2016). The book’s authors differentiate between lectures based on level of student interaction, content, and medium.

Many Types: Their categories are instructive: On the level of student interaction, we have not only the formal lecture (like a TED talk) and the famous Socratic question-series but also the less-formal lecture where students can pose questions, lecture-discussion where the professor poses the questions, and the interactive lecture (lecture segments with short activities interspersed). By content, they mean anything from storytelling and problem-solving to demonstrations and point-by-point outlines. And the medium can be in-person with PowerPoint, without any tech gizmo, on the whiteboard, on the blackboard, or even online. Try them all and see what fits!
My Experience: I have a very mixed relationship with lectures. As a student, I was always a self-learner and found lectures to be a loathsome experience. Since my undergrad days pre-dated smart phones and ubiquitous laptops, this usually translated into me sitting in the back doodling or counting dots in the ceiling. Many years later, as a doctoral student, I took S.G.’s class and my whole vision of "lecturing" changed. S.G. was not so much a lecturer as a storyteller. He could walk into the room with a piece of chalk and a smile and captivate the room for a full 2.5 hours.

Own the Material: I’ve spent considerable time since then pondering what it was that that was so engaging about his methods. I’ve since come to believe that part of his magic is that his ownership of the material was so masterful and so deeply entrenched in his own interests and goals, that in his experience he really was just a storyteller and the story just happened to require that he pause occasionally to provide definitions, or do an example, so that he could continue the story. Student engagement was natural, much as it would be for a more traditional "story hour".

Out to Dinner: As I have progressed from student to teacher in a discipline (geology) where lectures are arguably the dominant course format, I’ve experimented quite a bit with the various tricks and techniques that come recommended: flipped classrooms, interactive technology, inquiry-based learning, etc. But the method that I have found most continually successful is simply to be, like S.G., a master of the material and to present it to a classroom the way I would if I were out to dinner and trying to explain a scientific concept to a friend.

Problem-Solving Through Stories: I strip away the layer of formality and reduce the reliance upon technology to simply teach as a consequence of trying to tell a story in which the day’s lesson plays a role in solving a problem. In using this approach, I have found that the students remain more actively engaged, an effect I partially attribute to the fact that the tone of the presentation is more conversational than a more traditional lecture might be.

Meet the Faculty

Stephanie DeVries
BGES
II. KNOWING WHEN TO TAKE EVASIVE ACTION
Mental Checklist: If I see glazed eyes during a class, I run through a mental checklist and turn to rather simple strategies. Ask a question. Tell a self-deprecating joke. Connect the material to my personal life or design practice. Check if the room is bright enough — no, seriously, open those blinds and turn on the lights! But, I never turn to technology to solve problems.

Learning is a Social Experience: I’m actually a technophile, but I loathe technology in classroom lectures. This is not because of the horrors of my undergraduate smart board experience. Instead, I dislike it because the technology should be the least interesting thing about a lecture. The greatest asset in the classroom is you because learning is a social experience. Every class I’ve been a student in, I wanted the lectures to be full of personal anecdotes and narratives because it meant I would actually pay attention — dare I say, have fun? The learning came naturally with lectures based in storytelling, and I just remembered them. I probably always will.

Fuchsia Paper!: Any time you think about fixing a lecturing issue with clickers (dead batteries), fancy websites (browser update), and jazzy presentations (death-by-PowerPoint), take a second to imagine you’re saying the same thing about the colors of your chalk and markers. “Ah, yes, today’s handout will be printed on fuchsia paper!” Well, as a graphic designer I can say adding a bit of color could be useful, but it could also miss the point entirely. No tool can fix all problems in all contexts. Will this tool solve a problem? Or am I trying to turn it into a crutch?

Novelty: I think that the best case for adding technology to a lecture is because it could inject novelty into the experience. When clickers were first used, the newness of that would have factored into their effectiveness. The same could be said of any strategy. So, I would ask myself, what can I do to add novelty, to make my classroom a unique experience?
Room Temperature?: Lecturing in an online format has provided some unique challenges. I have previously relied upon the “temperature of the room” to guide my lectures, paying close attention to students and their level of engagement. When everyone begins to glaze, it is time for a change. Now, online-students are at a distance, pacing themselves, and this has forced a change of pace for me as well. Initially, I was doing full length lectures with the idea that "they can pause me anytime!" However, what I have come to understand is that they often do not — they just glaze over at home.

Tips: In collaborating with people who use this online format, I have picked up a few helpful tips along the way:

- **Continue to break up content.** In a classroom, questions, comments, and discussion will break up the pace and allow for refocus even in denser lectures. Without that flow, you can adapt your lectures to mimic that flow. As my friend in the Studio reminded me, "That lecture is the same length as an episode of Friends. Are you as entertaining as an episode of Friends?"

- **Add activity into lecture.** One excellent feature on the Canvas Studio is the ability to add questions and comments to all video. Ask questions within your lectures or ask students to comment to create a virtual discussion.

- **Provide a guide through the module.** I place all my weekly content into three folders: Read, Watch, and Listen, and Do. Then, provide a map of suggested progression throughout that week.

- **Continue to be yourself.** Actors play to a green screen, the laughter is canned, but the performance can still be Oscar-worthy!
Monday Observations: At the beginning of each week, I will ask my students to address a topic in the news from the preceding week that may be relevant to the topic for the week. In the past, I have built this into the class itself and assessed them using low-stakes grading and a short half-page question or link to an article. This works better in small classes and the instructor needs to keep up what's going on in the world and what is relevant to the topic at hand.

Ticket to Ride: This method works better in small liberal-arts type courses. Have students bring in a sheet of paper with 2 to 3 discussion questions about the reading for that week. If they don’t have a sheet of paper, they don’t get in the class for that day and lose attendance points. This forces them to come prepared and ready to engage and gives me a chance to mix it up when lecturing gets boring or stale.

15-minute rule: I break up lectures into 15-minute segments. Somebody told me that most people start to lose attention after 15 minutes. Break it up using one of the aforementioned methods, a group activity, discussion, short video, reflection work, or something else. Sometimes, just a change of the medium makes a difference to keep students engaged.

"Let Go" and Don't Fear Creativity: The teaching process is about your students and what works for them. Some classes are going to prefer a more straightforward traditional lecturing approach, whereas others are going to want a more relaxed, engaged, and creative approach. You have to read a room but feel free to experiment with ways to discuss or present material. At the very least, students will respect that you are trying to engage them. Obviously, within reason, of course!
III. HOW TO BREAK UP A LECTURE
Blend: I try to blend my lecturing with active learning exercises, using the lectures to set-up discussion and to provide "connective tissue" between topics.

Lightning Discussion: Toward this objective, I create "lightning discussion teams" (three students sitting in close proximity to one another) who can quickly discuss a question I raise for two minutes and share their response with the full class.

Humor: Interspersing humor (at my expense) seems to work well. It helps to make me more relatable and less of a “talking-head expert.”

Wander: I intentionally “wander.” It provides some visual relief for the students and allows me to energize pockets of the classroom where attention appears to be drifting.

Passion: In my opinion, the most important element of effective lecturing is passion for your subject and the ability to communicate that passion to your students. My favorite professor in undergraduate school taught American history. He knew his subject so well that he could walk into class without a single note and talk for an hour (no PowerPoint, no videos, no voting devices). He told stories about the topic for that day, using voice modulation, eye contact, and gestures designed to draw his audience in and make us feel like we were there at that moment in history — he was essentially acting out history for us. It was enthralling and left a lasting impression on me.
Balance: Having read Stephen Brookfield's *The Skillful Teacher*, I’m in agreement that not all lecturing is bad and not all discussion is good. Rather, there should be a balance between the two.

Keep the PowerPoints Simple: I also implement PowerPoint in my lectures as this helps to organize the content and provides a visual for the presented lecture. I agree with Don Warrington regarding the importance of keeping the PowerPoints simple and including pictures to keep them interesting and applicable to the content. It also helps to include learning objectives that will be covered in the presentation/lecture.

Voiceover: Teaching primarily online, my graduate nursing research class offers students the option to watch a voiceover PowerPoint or just read the PowerPoint for the module. In addition, there are posted links to examples of assignments and to videos which help depict the concept being taught.

Ethical Dilemmas: In teaching ethics in research, the class was asked to watch one of two movies (e.g., *Miss Evers Boys* and *The Immortal Life of Henrietta Lacks*) to review regarding ethical dilemmas present in the movie(s) and ethical rights which were violated in the research studies depicted in the films. Students were then asked to comment on each other's discussion post and they were able to learn by viewing the movies and from discussions with each other.

Multiple Formats: The previous tip is an example of how the content can be presented in multiple formats (using multimedia) and include discussion to teach the information and reinforce the content. Through the discussions, students are able to learn from others in the classroom as some students will mention ethical violations presented in the movies that other students might not have mentioned or detected.
ENGAGING STUDENTS IN DISCUSSIONS AND ANSWERING QUESTIONS: Put your student names on small strips of paper; draw them out of a box and select a slip; whoever's name is on the paper slip answers the question; if he/she does not know the answer, he/she can ask a friend (classmate).

EXTRACURRICULAR ACTIVITIES: For example, there are many regional conferences that don't cost an arm and a leg to participate in; you can send your students to them and have them participate in student competitions, such as the Tennessee Academy of Science and SkillsUSA.

CLASS ASSIGNMENTS: Another method that I use is to give students in-class assignments in addition to their homework. During this activity, I'll walk throughout the class (between the desks) to see how students do with the assignment and talk to them individually, helping those whom I feel need assistance with the assignment.
A Mix: Just like all the great tips provided by everyone above, I try to use a mix of PowerPoint slides and whiteboard, ask questions frequently, and seek answers in an active way through techniques such as think-pair-share, get straight to the point, and have open discussions (among other techniques) that promote an active learning environment.

Bored Students: The problem, however, comes from the fact that students may get easily bored. One reason for that, from experience, is the fact that we always try to stick to the topic. We all have a schedule and a bunch of topics we need to discuss which is very stressful, not only for teachers but also for our students. Thus, it is always healthy to not always stick to the topic and get out of the track a little bit to discuss other things with our students.

Without Any Planning: I usually do an informal human development and career advising talk (a few minutes won’t hurt). The interesting part is that sometimes, without any planning, I find myself getting back smoothly to the topic with all students refreshed and ready to learn more. I do not apply this approach all the time, but when I have done so, it has been a very great way to spark students’ interest in learning more and helping each other learn.

Be There: This is not a tip that I always use, but it is something that I have done a lot before and has been very helpful in creating a stronger bond between myself and my students: Letting the students know that I am there to help — not to merely instruct — actually makes them willing to learn more.
THE WALKER CENTER FOR TEACHING AND LEARNING AT UTC

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