



Noisy Classrooms: Not That Bad After All!

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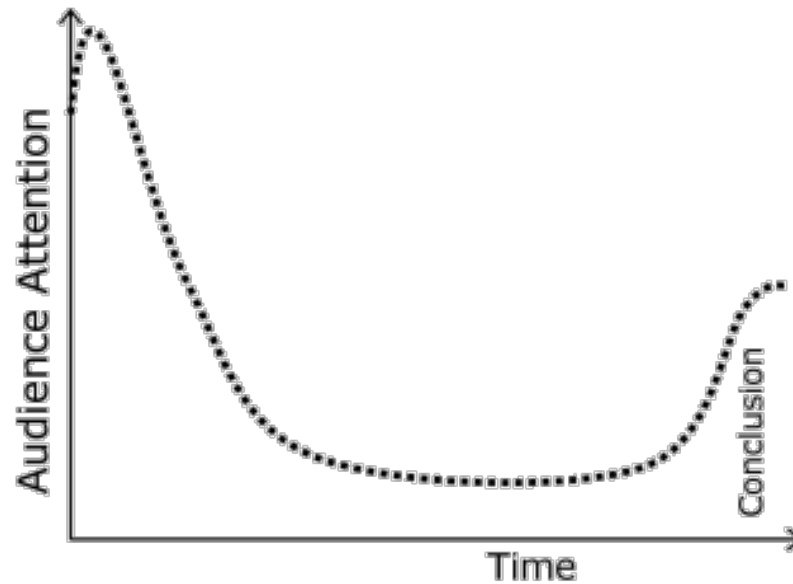
Objectives

- Learn limitations of a teacher-centered didactic session
- Understand the need for student engagement
- Learn various active learning strategies

Takeaway

- Learn active learning strategies suited for your teaching style
- Identify an active learning strategy to be utilized in your classroom following this workshop

Didactic Lecture Saga



Learning is not a spectator sport. (Chickering and Gamson, 1987)

What do we all want?

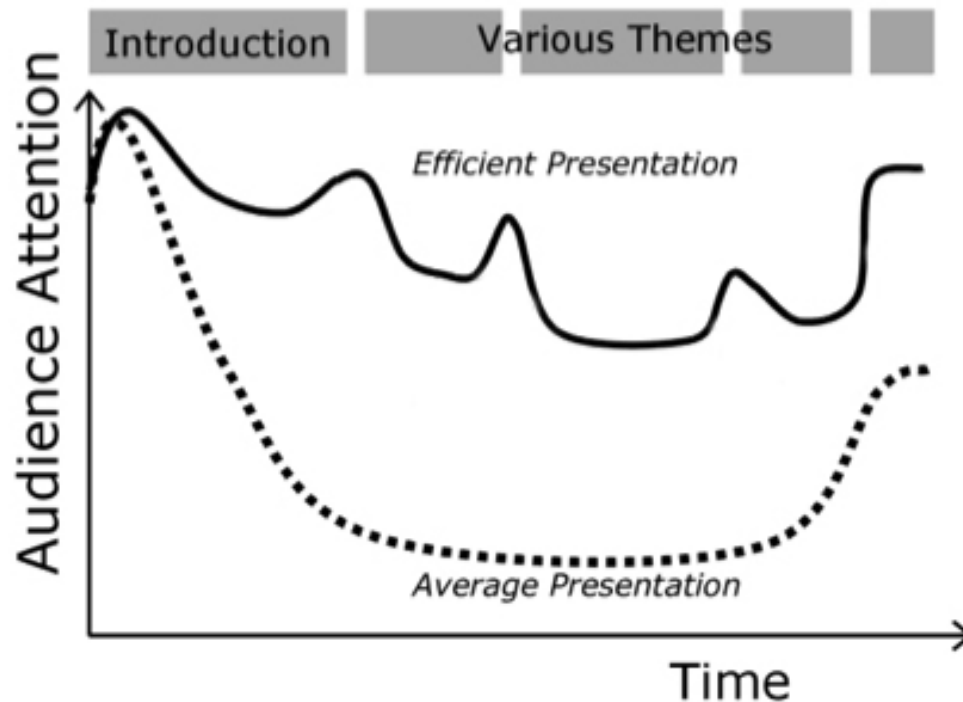
- No yawning
- Head nods
- No Facebook, texting, tweeting and Skype while the lecture is going on
- Wow Factor at the end of each lecture



Be Realistic

- We cannot have 100% of students paying 100% attention during the lecture
- Didactic mode of delivery of lectures **CAN BE** effective
 - Remains the primary mode of delivery in many institutions
- Active learning techniques can be used to **supplement** rather than replace lectures

Why is Active Learning Important?



Students learn what they care about and remember what they understand.
(Ericksen, 1984)

Barriers



- Outside Comfort Zone
- Not enough time
- Class size is too large
- Classroom is too small

Why Engage Students?

Dr. PM is a young faculty member with little teaching experience. He is preparing for his first lecture at OU and wants to keep the lecture interactive.

Discussion

1. Why do you think it is important for him to keep the lecture interactive?
2. What are the drawbacks of a traditional didactic session?
3. In what ways interactive sessions will address these drawbacks?

Active Learning Strategies

A Comparison of Low and High Risk Active Learning Strategies

<u>Dimension</u>	<u>Low Risk Strategies</u>	<u>High Risk Strategies</u>
Class Time Required	relatively short	relatively long
Degree of Planning	carefully planned	spontaneous
Degree of structure	more structured	less structured
Subject Matter	relatively concrete	relatively abstract
Potential for Controversy	less controversial	more controversial
Students' Prior Knowledge of the Subject Matter	better informed	less informed
Students' Prior Knowledge of the Teaching Technique	familiar	unfamiliar
Instructor's Prior Experience with the Teaching Technique	considerable	limited
Pattern of Interaction	between faculty & students	among students

Lower Risk Activities

Pause Procedure

Short Writes

Summarize last lecture, readings, etc.

What didn't you understand?

Analytical lists

Journal entries

Thumbs up/thumbs down response to statement

Surveys or questionnaires

Formative (ungraded) quizzes

Think-Pair-Share

Brainstorming

Pairs/groups develop an outline of the lecture

Structured group discussions (specific questions provided)

High Risk Activities

- Unstructured group discussion
- Individual/Group presentations
- Groups developing applications related to lecture content
- Groups writing test questions related to the lecture content
- Students analyze a problem (poem, photography, article) and evaluate each others' work
- Role play illustrating a concept from the lecture

Some Basics

- Always begin with talking about the previous topic/lecture even if you did not give that talk
- Ask questions from your previous presentation
- Try to talk about WHY this lecture and why at this point
- One slide objective that must appear at multiple points of the same presentation and of course at the end

Behaviors Promoting Student Learning (Gorham 1998)

- Appropriate use of humor
- Praising student performance
- Encouraging students to talk
- Asking questions about student viewpoints and feelings
- Following up on topics raised by students
 - Even if not directly related to class material
- Refer to as “our” class and what “we” are doing





Peer Teaching

Process by which students learn from fellow students about the subject material

Benefits of Peer Teaching for Learners



- Students feel more comfortable asking questions to other students, rather than their professor
- Reduced frustration on difficult assignments
- More time for individualized attention

Benefits of Peer Teaching for Teachers

- Teaching others ensures a high level of content mastery
- Sense of accomplishment (and in some cases, funding)
- Peer instructors gain valuable teaching experience



Peer Teaching Strategies

- Breaking students into small groups
 - Ideal for incorporating into a didactic setup
 - No organization required
 - Helps break monotony
 - Provides immediate feedback on level of comprehension
- Editorial activities
 - Suitable for courses where students write essays or self reflections
 - Need for giving strict guidelines on comments and use of professional language while giving feedback

Peer Teaching Using MCQ

- During class, lecture is interrupted by multiple choice questions (MCQs) and discussion.
- MCQs are designed by instructors to engage students in thinking about deep conceptual issues
 - Must be a thought provoking and NOT a simple recall MCQ (can have more than 1 answer)
- 4 steps:
 - Students individually consider a question and select an answer
 - Students discuss in pre-assigned groups
 - Students vote again on the same question
 - Class wide discussion follows led by student explanations

Peer Teaching in a Flipped Classroom Session

- Record your lecture using programs like Camtasia
- Proof read your lecture for any inaccuracies and edit to to perfection
 - Tip 1: Keep it to the shortest length
 - Tip 2: Record it as if you are talking in front of a class (pose questions every now and then)
- Upload the lecture on to a LMS giving enough time for students to listen
- In class use:
 - Opinions
 - Short answers
 - MCQ

Validity

- Vasay (2010) conducted a study of peer teaching in college mathematics, and found that it “**greatly affects the intellectual and moral values of the students**”, such as:
 - the ability to express their ideas
 - mastery of different concepts
 - time management
 - self discipline, self reliance & self confidence
 - Cooperation & obedience
- Researchers have studied this for more than 2 decades and summarized that properly used, peer teaching benefits tutor and tutee (*Sowell et al*).

Quote

"There is this ah-hah! Kind of feeling. It's not that someone just told me; I actually figured it out. And because I can figure it out now, that means I can figure it out on the exam. And I can figure it out for the rest of my life."

(From Eric Mazur (Harvard University) in Science Teaching Reconsidered - A Handbook, Committee on Undergraduate Science Education, National Academy Press, Washington, DC, 1997, p. 22)

One Minute/Two Minute Paper

- Particularly useful at the end as a way of encouraging students to summarize the day's content.
- The minute paper forces students to put information in their own words, helping them internalize it and identify gaps in their understanding.
- When collected at the end of the period, the minute paper can serve as a classroom assessment technique
- Help instructors gauge how well students are learning the material, what they understand, and what the instructor needs to spend more time on.

Concept Maps/Mind Maps



Lets map it!



- Refer to the article in your handouts
- Work individually for about 5 minutes to come up with your map
- Work in groups for another 5 minutes to edit your version
- Random two groups will come up and present their works

Think-Pair-Share

- Active learning strategy that engages students with material on an individual level, in pairs, and finally as a large group
- Consists of three steps:
 - First, the instructor poses a prepared question and asks individuals to think (or write) about it quietly
 - Second, students pair up with someone sitting near them and share their responses verbally
 - Third, the lecturer chooses a few pairs to briefly summarize their ideas for the benefit of the entire class.

Question and Answer Pair

- In the middle of your lecture (or at the beginning) randomly pick two students
- Student A should pose a question to student B
- After student B answers the question student B will ask another question to student A
- The strategy is particularly useful for teaching students how to frame good questions
- It can also be used to encourage students to prepare for class

Blank Slide Approach

- Insert a blank slide into your presentation to allow for breaks in the presentation
- Imagine a lecture hall.
- The instructor is discussing material, moving through slides, and then the screen goes dark.
- Students are immediately transfixed.
- Did the machine break? What is the instructor going to do?
- At this point you have your students' full attention.

Notes Check Strategy

- The instructor asks students to partner with someone nearby and compare their notes, focusing on summarizing key information and locating misconceptions.
- The exercise can be completed in as little as two or three minutes.
- It's important to remember that students are not giving their notes to one another in this exercise, but working together to fill gaps in their collective understanding of the information.
- In this way, instructors can help students learn good note taking skills, as well as monitor whether or not students are able to identify the key ideas in the day's material.

Parting Advice

- Start small
- “Gradually” increase the student activity level
- Choose what is appropriate for you within the context:
 - of your discipline
 - of the topic
- Choose something that you are comfortable with and DON'T pretend to be enthusiastic

Questions?



Contact Us!

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Thank you!

