Effective Teaching in Large Groups
Ensuring Learner Engagement

Objectives
› Participants will:
  - Define a “large group presentation”
  - Discuss 5 specific strategies for developing better large group presentations
  - Describe the “flipped classroom” and how it enhances active learning

So …
› What IS a “large group presentation”?
› What makes it good/effective?
› What makes it less good/effective?
› How can you incorporate active learning in a large group presentation? (Did you see any of this yesterday?)
Good Presentations
Take into account:
› The Content
› The Speaker
› The Methods

The Content
This one’s easy:
GNOME it!

The Speaker:
Think of an effective speaker …
What did they do?
Good Speakers

- Are prepared ("know their stuff")
- Know / speak to audience level and needs
- Organize or sequence the information
- Choose key information
- Are flexible (length and style)
- Vary their voice
- Use movement
- Demonstrate effort and confidence
- Use humor
- Rehearse!

The Methods

1. Talk Less
2. Don’t be Dense
3. Ask, Don’t Tell
4. Tell them Thrice
5. Make it Active

CHARACTERISTICS OF EFFECTIVE GROUP TEACHING

- Provide a preview of information prior to an explanation.
- Organize information within a step-by-step lesson sequence.
- Assess student learning when information is being given.
- Signal transitions between information.
- Use multiple examples to illustrate information points.
- Stress important points during explanations.
- Provide for brief pauses at appropriate times during the lecture.
- Eliminate additional unexplained content nonessential to current explanation.
- Review information frequently.

Meta-analysis — 95 articles (35 college/university level).

Each study showed that the behavior suggested had a significant effect on student achievement or perception at the p < .05 level.

Chilcoat, 1989
Exercise

Take 2 minutes to discuss your impressions of the list with the person to your right.

1. Who is (or isn’t!) talking?

Methods

› Instructor paused for two minutes on three occasions during each of the lectures: the intervals ranged from 12-18 minutes
  ✔ Students worked in pairs – discussion
  ✔ Rework notes
  ✔ No interaction w/ instructor

› Results: “If we talk less, students learn more”
  
Ruhl, 1987

IMPLICATIONS:

1. Adult learner’s ability to retain information falls off substantially after 10-20 minutes; and

2. By engaging in an activity that reinforces the information presented, assimilation and synthesis of knowledge occurs and learning should be increased
2. Don’t be so DENSE

**Methods**

3 lectures, same subject, different density (amount of new info):

<table>
<thead>
<tr>
<th>New Material:</th>
<th>High</th>
<th>Medium</th>
<th>Low</th>
</tr>
</thead>
<tbody>
<tr>
<td>90%</td>
<td>70%</td>
<td>50%</td>
<td></td>
</tr>
</tbody>
</table>

Remaining Time:
- Restating key ideas
- Highlighting material’s significance
- Providing illustrative examples
- Relating the material to student’s prior experience


**RESULTS:**

"If we present less new material, our students learn more"

Immediate and Longer Term retention

Density:
- Low > Medium > High

**IMPLICATIONS:**

1. Only 50% of the material presented in any lecture should be **new**
2. Remaining lecture time should **reinforce** the material
3. We defeat out purposes when we exceed that limit
4. Conflict—"cover the field" v. "amplify the basics"
Exercise

› Take a minute —

› Consider how you would reduce the density of a lecture or presentation (large or small group) that you have given or will give (or one you have attended).

› We’ll share with the group

RESULTS:

“Ask, Don’t Tell”

even better—

Let Them Ask!”

Generating and answering own questions**

Answering teacher questions

Re-reading

** took at least twice as long in all three experiments

IMPLICATION:

> “For indeed the whole sum of what may be said about questioning is comprised in this: It ought to set the learners thinking, to promote activity and energy on their part, and to arouse the whole mental faculty into action, instead of blindly cultivating the memory at the expense of higher intellectual powers. That is the best questioning which best stimulates action on the part of the learner; which tends in great measure to render him independent of his teacher; which makes him, in fact, rather a skillful finder than a patient receiver of truth.”

Fitch, 1879

Questioning IS Learning
Exercise

Generate and answer a question that will help you remember the essence of Fitch’s statement.

4. Tell Them Thrice

› Promotes Deliberate Practice
› Consists of—
  ✓ Well-defined task
  ✓ Intensive practice
  ✓ Detailed & immediate feedback
  ✓ Repetition

Ericsson, 2008

The ‘Set-Up’

1. Tell them what you’re going to tell them (provide focus)
2. Tell them; even better, demonstrate
3. Tell them what you told them (debrief)
5. Make it Active

**Methods**
- Collaborative peer instruction
- Socratic dialogue
- Overview case study
  - More than twice as effective as traditional courses in promoting conceptual understanding
  - "...reminiscent of that seen in comparing instruction delivered to students in large groups with one-on-one instruction"


References
- Fitch, J.G. The Art of Questioning. 1879.

The “Flipped Classroom”
- Traditional class work (lecture, reading, PowerPoint) done at home, while
- Traditional homework (e.g., problem sets) is done during class time
The “Flipped Classroom”

- Traditional class work (lecture, reading, PowerPoint) done at home
  - Learners can spend as much time as they need – and can review multiple times
- Traditional homework (e.g., problem sets) is done during class
  - Students collaborate in problem solving
  - Instructor can assess learning comprehension
  - Instructor time is used in direct help (clarification …)

Pre-Class Activity

- Should include generation of questions about material
- Accountability for pre-class work
  - Traditionally a quiz or test
  - In the Flip: more a demo of comprehension thru application ~ “Guided Practice”
  - Accountability becomes Responsibility (Professionalism!)

ACTIVE LEARNING IN THE FLIP

Goal is to promote an use higher order thinking skills.

“We remember ~10% of what we hear, but ~90% of what we DO.”
In-class Activities

› Answering questions; solving problems
› Small group discussions within the larger group
› Preparation of presentations
› Presentations of discussion results
› Peer reviews of presentations

Is there any place in the Flipped classroom for didactics/lectures?

In-Class Didactics:

› Short, surgically targeted “micro lectures”
› Address common misconceptions
› Clarify recurrent student questions