Didactic Teaching: Giving a Dynamic and Effective Lecture

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Organizing Your Lecture
“The Four Aces” of Effective Teaching…

What do you think they are?
“The Four Aces” of Effective Teaching Based on Student Performance

“The Four Aces”
1. Outcomes-based teaching
2. Clarity
3. Engagement
4. Enthusiasm

ACE #1: Outcomes

- What are your learning goals?
- What are the desired outcomes from your lecture?
- Curricular alignment = degree to which instructional methods enable the learner to acquire the desired outcomes
ACE #1: Outcomes
Creation of Learning Objectives

- Bloom’s taxonomy can be used as a guide
- Often devised as:
  “After this presentation, the learner will be able to ______________.”

*Insert verb cue depending on appropriate level of learning.*
ACE #2: Clarity of Instruction

- Highly explicit directions and explanations
- Make the lesson available from alternate perspectives
- Consider curricular scaffolding
ACE #3: Engage!
ACE #4: Enthusiasm!!!
Organizing a lecture

Introduction

1

2

3

Conclusion
Organization - Introduction of Talk

- 3 Main Purposes
  - Preview of the talk (or bridge from last lecture)
  - Set learning climate
  - Capture audience attention
Organization – Introduction of Talk

- How to capture attention?
  - Jokes (be wary...)
  - Case presentation
  - Personal experience
  - Topic controversy
  - Historical vignette/story
  - Relevance to clinical practice

- Help audience understand why they should be interested in your topic
Organization - Body of the Talk

- 3-5 main points
  - Each main point will have several sub-points
- Cluster ideas
- Have learning outcome/objective for each point
- Vary your presentation methods every 15 minutes
  - Visual, auditory, kinesthetic modalities
Organization - Body of the Talk

- **Constructivism learning theory**
  - Existing knowledge must be activated before learners can successfully engage with new learning
- Activate learner’s prior knowledge
- Build on existing knowledge
- Consolidate new knowledge
Organization – Body of the Talk

- Promote deep learning and critical thinking
- Students recall/understand presentations that contain fewer details
  - Simplify explanations/graphs/diagrams
  - Explain concepts and ask students to apply their knowledge
Organization – Body of the Talk

- Explaining is the key skill in lecturing (ACE #2 Clarity!)
  - Interpretive explanations – What?
  - Descriptive explanations – How?
  - Reason-giving explanations – Why?
- To explain means to give understanding=creation of new connections in the minds of learners
Engage – How to *Involve* Learners?

- Ask for students’ questions
- Ask your own questions and **wait**!
- Active learning activities
  - Pre-writing
  - Brainstorm
  - Pair-share
  - Subdivide into groups
  - Show of hands
  - Problem-solve

CONTINUES...
Organization - Conclusion of the Talk

- Should summarize the main points covered
  - What do you want the audience to remember?
  - Slides to summarize key points
- Maximize student engagement
- Make sure to leave enough time for questions
- End concretely ("thank you")
Effective Lectures

Thanks to...
- Tracy Fulton, PhD
- Dave Irby, PhD

References
- Brown G and Manogue M.  Med Teach, 2001;23(3)
- Bulgur SM, Mohr DJ, Walls RT.  Journal of Effective Teaching, 2002;5(2)
- Irby DM.  The Clinical Teacher, 2004;1(1)
- Malik AS and Malik RH.  Med Teach, 2012;34
Arresting Visuels: The 3 Laws
Pete Yunyongying, MD FACP
SGIM, Denver CO 2013
"If a teacher lectures in an empty forest..."
Set Your Tone

**COLORS**

"Colors, like features, follow the changes of the emotions." – Pablo Picasso

**LAYOUT**

"Templates are visual metaphors for your ideas" – prezi.com

**FONTS**

"It has to do with mood setting before the message is delivered" – Neville Brody

First Law (and keep) Attention
Multimedia
Graphs, Charts, Diagrams
Images and Videos
Music and Sound
Animation

"Edutainment"
Be passionate

Academia is the death of cinema. It is the very opposite of passion. Film is not the art of scholars, but of illiterates.”

— Werner Herzog
1. Font Size Matters!

2. Graphs are maps. A map without street names is useless.

3. In the West, we read left to right, top to bottom, unless something draws the eye.
An idea. Resilient, highly contagious. Once an idea has taken hold of the brain it's almost impossible to eradicate. An idea that is fully formed, fully understood. That sticks, right in there somewhere.

**BUT**

No idea is simple, when you need to plant it someone else's mind.
The Audience Starts at Point A!
An idea, fully formed,
sits at Point B!

Follow the Yellow Brick Road
Each slide should build to a coherent picture.
Oscar Pettiford

Born 1922, Okmulgee, Oklahoma

- Mixed African and Native American ancestry
- Family of 10 children
- double bassist, cellist, composer

1996
Wooten's first solo album, 'A Show of Hands', invents the electric bass sound with melodic lines and funky technique.
- Thumb plucks
- Hammer-on
- Tapping

1998
Named 'Bass Player of the Year' from Bass Player Magazine for the third year in a row!
Random visuals:

- **Distract** the audience from your message
- Creates **Competition for Attention**
- **Disrupts** the Whole

- Insert Random Picture of family dog Here
- Insert Random Joke Here
- Insert beautiful sunset Here

**BEWARE**
they stray slide
It's a visual world and people respond to visuals.

- Joe Sacco
Multimedia allows for variations in a pattern… energizing the audience.

But Media also changes the presentation method…

Reaching more people by varying the format!
Edgar Dale Cone of Experience

Remember:

- 10% of what we READ
- 20% of what we HEAR
- 30% of what we SEE
- 50% of what we HEAR and SEE
- 70% of what we SAY
- 90% when we interact

Passive to Active Action

Multimodal
Arresting Visuals: The 3 Laws

First Law: Grab (and Keep) Attention

Second Law: Build to a Whole

Third Law: Enhance Your Message
I have nothing to report....

(It wasn’t me)
A lasting impression?

- Learning Objectives?
- What was the best presentation/presenter you ever heard?
  - Why?
- What was the worst?
  - Why?
Learning Objectives

- Demonstrate active learning via a slide presentation
- Discuss strategies to deliver a lecture effectively
- Present pitfalls which diminish the impact of presentations
Presenting Pearls

- Preparation
- Anxiety
- Technology/ Slides
- Delivery/ Lecture
- Pitfalls
Principles for Preparation

- Speak on what you know
- Prepare early- organize an outline
- Know audience- how to engage
- Know time frame allowed and format
- Know your presentation
  - print slides to refine and review
- Practice if needed
Anti-Anxiety Aids

- Preparation/ Practice- anticipate questions/ objections
- Don’t expect perfection
- Relax, dress comfortably.  
  - Confidence
- Start with Ice breaker- quote, visual or anecdote
- Connect with Audience- notice cues
- Use notes
- Rx: try in advance
Taming Technology

- Show up early to check Technology
- Back up slides and plan
- Bring print-out/ notes
- Reading glasses
- Laser pointer
- Don’t start or end late!
Slick use of Slides

- One slide per minute!
- Use slide as prompt only
- Find discrete way to read/ see slides
- Cover all material on slide
- Don’t skip slides
- Make sure slides are readable
- Control your pointer
Tips for Delivery

- Talk, don’t read
- Voice: volume, speed, pitch, fillers
  - Say less and they’ll think you know more
- Body language/ Posture
- Gestures/ Hands
- Acknowledge audience
  - Make eye contact
  - Ask questions/ bring them in
Lecture

- Intro- grab attention and engage!
- Tell them what you will talk about (3-5 main points)
- Talk
- Tell them what you talked about
- Conclusion and future directions
Questions?

- Repeat question and stay calm/positive.
- That’s a great question!
- That’s a great point, but....
- That’s a controversial issue:
- We need more data
- We hadn’t considered that...but thank you for your comment!
Pitfalls

- Lack of knowledge
- Lack of preparation
- Lack of an outline/organization
- Too many slides/wrong slides (visual)
- Anxiety
- Speech which is not clear (auditory)
- Complex material poorly explained
Conclusions

- Prepare
- Manage Anxiety
- Tame Technology
- Slick use of slides
- Delivery
- Lecture Content
- Avoid Pitfalls
Thank you!

- And now it’s your turn.....
Group Exercise Worksheet

Instructions:
Plan a mini lecture on a medical topic to be given in a large group lecture format. Time permitting, one member of each small group will present this mini lecture to the whole workshop.

You will be working in small groups. Each small group will choose one mini lecture of 3-5 minutes duration to prepare as a group. The topic can be something that one member has partially prepared, or any other medical topic that you are planning to give to students or residents. Use the worksheet below to plan the mini lecture. At the large group debrief at the end of this exercise, one member of the group should be prepared to deliver this mini lecture to the workshop attendees and/or discuss with the group.

Before you begin, answer these questions:
1) What are the desired outcomes/learning goals of the talk?
2) How does this fit within the context of the overall curriculum?
3) What are the learners likely to already know about the material?
4) What teaching methods are best to accomplish your learning objectives?
5) Is large group didactic lecture the appropriate format to accomplish these objectives?

Ready to Start?
How Do I Get From Where the Audience Is to Where I Want Them To Be?
What 3-5 main points for this talk?

Main Point #1: ________________________________

How do I explain this point to the audience?
How do I connect this with what the audience likely already knows?
What visuals can I use to explain this point better?
How can I explain it differently if they don’t seem to understand?
Is the idea simple enough?

Main Point #2: ___________________________________________

How do I explain this point to the audience?
How do I connect this with what the audience likely already knows?
What visuals can I use to explain this point better?
How can I explain it differently if they don’t seem to understand?
Is the idea simple enough?

Main Point #3: ___________________________________________

How do I explain this point to the audience?
How do I connect this with what the audience likely already knows?
What visuals can I use to explain this point better?
How can I explain it differently if they don’t seem to understand?
Is the idea simple enough?

Creating a Whole from all the Parts
How do I transition from Main Point #1 to Main Point #2, etc?

Style and Delivery:
1) How am I going to capture the attention of the audience?

2) What learning climate do I want to set?

3) How am I going to maintain the attention of the audience throughout the whole talk? How can I change the presentation method each 15 minutes?

4) How am I going to engage the audience?

Logistics:
1) What materials or technology am I going to use?
   What is my back up plan if the preferred technology doesn’t work?

2) How much time do I have?
   Double Check: Am I covering too much?

Conclusion:
1) What are my take home points? How do I reinforce the message one last time?
Question and Answer Period:
   1) What questions would the audience likely have?