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# Lecturing Skill Development

## *Lecturing as Performance Art*

***Richard M. Schwartzstein, MD***

*Executive Director, Shapiro Institute for Education and Research, BIDMC*

*Gordon Professor of Medicine and Medical Education*

*Director, HMS Academy*

*Faculty Associate Dean for Medical Education*

*Harvard Medical School*

*Education is at the heart of patient care.*



# Disclosures

I have no financial disclosures relevant to the content of this presentation.



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# Lectures - Good or bad?

Teachers and lectures...

- “We have so much information to transmit...”
- “I’m comfortable teaching this way...”
- “It worked for me...”
- “We should require student attendance at lectures...”



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# Value of a “good” lecture

- Efficient way to convey information
- Provide a context or framework with which to make connections
- Bring clarity to complex material
- Model thinking processes
- Provoke the audience to think about things in new ways



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# Challenges of a bad lecture...

Rockwood K, et al. Incidence of and risk factors for nodding off at scientific sessions (for the Nodding at presentations [NAP] Investigators). CMAJ 2004.

NOELs = Nodding off events per lecture

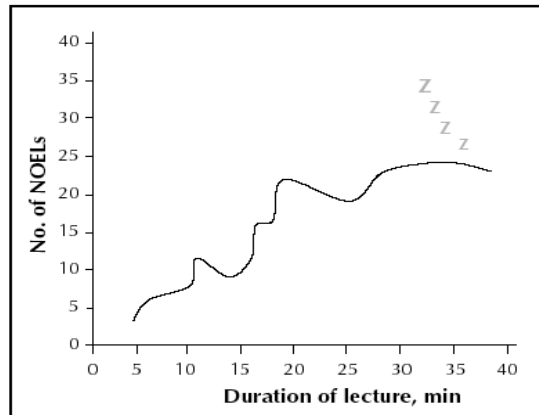


Fig. 1: Special incidence density curve, showing number of nodding-off events per lecture (NOELs) per 100 attendees over length of time of presentation.



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# Active Learning (and Teaching Others) Is Most Effective Learning

*Can we incorporate active learning into lectures?*

## RETENTION RATES

- Lecture 5-15%
- Reading 10%
- Demonstration 30%
- Audio-visual 50%
- Discussion Group 50%
- Practice by Doing 75%
- Teach others (immediate use of learning) 90%

*National Training Laboratories, Bethel, Maine*



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# What should our goals be?

- *Inspire*
- *Challenge*
- Transmit Information



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# Remember why you chose the topic...

- **You're interested in the topic**
- **Translate that interest to the audience**
- **Get them excited (know your audience)**



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# Where are we headed today...at the end of this session, you will be able to:

- Define together the characteristics of a good (and bad) lecture.
- Demonstrate techniques for engaging the audience
- Delineate strategies for making lectures interactive
- Detail nuts and bolts of presenting a lecture
- Describe the role of the lecture in the future of medical education.



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# Tell us about a great lecture...

- That you experienced as a member of the audience.
- That you provided as the lecturer.



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# A lecture nightmare...

*<http://www.haggardandhalloo.com/2013/05/19/a-hilds-nightmare/>*



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# Engaging the Audience

## *Content*

- Establish the relevance of the material
  - Adult learning principles - Why should I care about this?
  - Build upon previous material and knowledge
  - Where are you heading?
  - In medicine, clinical links are easy and important (but they can't be too abstract or general!)



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# Engaging the Audience

## *The Performance*

- The intimacy of television - can we recreate that?
- Body language - passion for and interest in your topic; you are not chained to the podium - make a one-on-one connection (Oprah-esque); use the full “stage”
- Voice - vary in pitch, tone, pace, conversational tone
- The power of pauses...



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# Powerpoint: The Dark Side



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# Engaging the Audience

## *Visuals*

- Slides
  - Less is more



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# Font Must Be Large Enough to Read



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# Raise your hand when you are finished reading this...

When we look to the individuals of the same variety or subvariety of our older cultivated plants and animals, one of the first points which strikes us, is, that they generally differ much more from each other than do the individuals of any one species or variety in a state of nature.

Charles Darwin, The Origin of Species



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# Visuals

## *The Laser pointer...*

- Beware the bouncing ball
- Beware the accelerating circle
- Two hands are okay
- Limit to graphics or tables (do we really need a pointer for text slides?)



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# Visuals

*www.glasbergen.com*



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# Using the blackboard (smartboard)...

- Choreograph the lecture
  - Key points that you want to save (upper and lower corners or down one side)
  - Practice your drawings
- Label the axes
- SIZE MATTERS
- The blackboard freeze - a teaching opportunity
- New technology - tablet PC



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# The Interactive Lecture

- ***Ask questions***
  - The 7 second rule
  - Why? How? Explain... rather than What?
  - Almost every answer has a kernel of truth - affirm and press on...what do others think?
- Audience response systems - small group work within a lecture
- Using props - elastic band, balloon, sheet, skeleton
- Team-based teaching in large groups
- The business and law school model - why not medical school?



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# Why Questions?

Your thoughts...



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# Why Questions?

- Elaborate knowledge
- Retrieval – solidify knowledge
- Assess for understanding
- Stimulate curiosity
- Dealing with uncertainty
- Engage the learner

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# Answering Questions

- Repeat the question
- Think out loud - how you get the answer may be as/more important than the answer.
- Be humble...model that none of us has all the answers.



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# Demonstrations and audience participation

- An active learner is a good learner...
  - Ask for volunteers - everyone's pulse quickens
  - If I don't volunteer, I'm still interested (What is he going to do with Fred?)
  - Make complex concepts intuitive



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# Additional Tips on Increasing Participation

<http://bokcenter.fas.harvard.edu/docs/TFTlectures.html>

- Invite challenges to your ideas
- If readings assigned, refer to them so purpose is clear.
- Visuals - ask students what they see before telling them
- Do role plays; debate a point
- Case discussions - tutorless case
- End session with questions to be answered for next session



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# Respect the Audience

- Preparation
  - Know who they are
  - Where are they in their learning?
- Timing



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# Bread and Butter Basics

- The room
- The sound system
- The projection system



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# See one, do one...

A volunteer...

- Watch yourself on videotape
- Peer assessment

*Newman LR, Brodksy DD, Roberts DH, Pelletier SR, Johansson AJ, Vollmer CM, Atakings KM, Schwartzstein RM. Developing expert-derived rating standards for the peer assessment of lectures. Acad Med. 2012;87:356-363.*



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# Role of Lectures in the Future

- Dilemma: “there is too much to teach!”
- Medical knowledge doubling every 3-10 years
- What is the best use of faculty time?
- How much do people retain from a conventional lecture?
- Conveying content vs. modeling thinking and problem solving.



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# Flipped Classroom Changes the Nature of the Student-Teacher Interaction

*[www.edtechtips.org](http://www.edtechtips.org)*



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# Flipping the Lecture

- FREEDOM is another word for not having to “cover” everything!
- Focus on the concepts that are difficult to understand
- Allows for questions, audience response, tangents, student agendas



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# Final Thoughts

- A well conceived and well presented lecture will always have a place in medical education.
- The audience *can* participate in a lecture; learning can be *active*!
- As with much of medical practice, lecturing is part science and part art - one can get better with attention to detail and practice.
- Your additions...



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