The Art of
Scientific Presentations
(Fundamentals in One Easy Lesson)

Andrew A. Nierenberg, M.D.
Thomas P. Hackett, MD, Endowed Chair in Psychiatry at MGH
Director, Training and Education MGH Research Institute
Director, Bipolar Clinical and Research Program, MGH
Professor of Psychiatry, Harvard Medical School
Essentials of Giving a Talk

• Conversation
• Slidemanship
• Performance
Presentation as conversation.
Joint attention.
Present truth as motivation.

Thomas and Turner
Clear and Simple as the Truth:
Writing Classic Prose
Princeton University Press 2011
It’s not what you say. It’s what people hear.

Frank Luntz, PhD
Words that Work
Hyperion Press, 2007
Story.
Narrative.
Sense-making.


It’s not a data dump.
What is interesting?
Deny assumptions.

That’s Interesting!
Towards a Phenomenology of Sociology and a Sociology of Phenomenology.
Murray S. Davis
Phil. Soc. Sci (1971) 309-344
It’s not about you.
Adult Learning.
Andragogy.
Andragogy

- Need to know: reason for learning something.
- Foundation: Experience (including error).
- Readiness: Immediate relevance to work or personal lives.
- Orientation: Problem-centered rather than content-oriented.
- Motivation: Internal versus external motivators.

Malcom Knowles
FIGURE 1.
The forgetting curve

The “forgetting curve” was developed by Hermann Ebbinghaus in 1885. Ebbinghaus memorized a series of nonsense syllables and then tested his memory of them at various periods ranging from 20 minutes to 31 days. This simple but landmark research project was the first to demonstrate that there is an exponential loss of memory unless information is reinforced.

Consider Your Audience.

- Who?
  - attending
- Why?
- What?
  - Learn
  - Teach
  - Assume
Master Your Material

• Data, information, knowledge
• Essential points
• How can you best prepare the talk?
  – Make cohesive outline
  – Make last slide first
  – Use what works for you
Know Slidesmanship: Make slides readable

• Font
• Number of lines
  – less than 10 total (usually)
• Content
  – Simple, but not simplistic
  – “So What?” test
• Avoid acronyms (at first)
  – unless you are absolutely sure your audience knows them
Know Slidesmanship: Make slides readable

• Bullets
• Graphics better than tables (sometimes)
• Clear Slide titles (the point of the slide)
• Consistent structure (usually)
• Just enough slides
• Cartoons, art, and humorous slides (with caution)
"How much are these orange and black ones?"
I COULD HAVE E-MAILED YOU MY POWERPOINT DECK, AND YOU COULD HAVE READ IT IN FIVE MINUTES.

BUT I PREFER MAKING YOU SIT HERE FOR AN HOUR WHILE I READ EACH BULLET POINT IN SLOW MOTION.

P-O-I-N-T N-U-M-B-E-R O-N-E...

YANK THIS AS HARD AS YOU CAN.
Know Slidemanship

• Master Powerpoint
• Use contrasting colors
  – Light or dark background
  – Contrast fonts
  – Use shading if necessary
• Use simple backgrounds
• Spell check
Know Slidesmanship

• Master Powerpoint
• Use contrasting colors
  – Light or dark background
  – Contrast colored fonts
  – Use shading if necessary
• Use simple backgrounds
Slides, Transparent.
You, Invisible.
Knowledge, seen.
Know How to Perform: General Principles

• Express ideas to impress audience
  – “Look how much I know” fails
  – Respect the audience
• Be spontaneous
• Have a conversation
• Tell a story
  – Avoid being scripted
Improvise

John Coltrane

Spontaneity built around a deep structure of knowledge.
Do

• Ease into the talk
• Speak clearly in conversational tones
• Make sure everyone can hear
• Pause if necessary
Do

• Make eye contact with entire audience
• Face the audience
• Use relaxed body language
• Give handouts
Don’t

• Fillers: “uh, you know, well, like”
• Speak too quickly
• Point out a mistake on slide (unless key content)
• Dissociate text from slide
• Use podium (if possible)
• Use Oprah-like slickness
Avoid Being Stiff and Expressionless
Avoid Reading Your Lecture
Don’t

- Use monotone voice
- Say, “I know you can’t read this, but….”
- Make the audience feel dumb
  - “As you all know….”
- Clutch the podium
Avoid Laser/Mouse Tinkerbell.
Manage Time

• Show up early enough
• Make sure equipment works
• Run through slides before the actual talk
• Anticipate glitches
Manage Time

• Start and end on time
• Monitor time
  – Visible or audible time limit
• Don’t rush
• Skip slides if time is running short
Manage Anxiety

- No one listens anyway
You probably know as much or more about your topic than anyone in the room at that moment.
Manage Anxiety

• Avoid trying too hard
• Avoid excessive caffeine
• Listen to inner voices
  – No one is there to judge you
  – You have something to offer
  – You’re giving them a gift
Manage Anxiety

• Social phobia
  – Fear of public speaking
  – Avoidance
  – Impairment
• Highly treatable
  – Antidepressants
  – Beta blockers
  – Cognitive behavioral therapy
Manage Questions

• Take questions at the end (usually)
• Repeat the question (almost always)
• Direct the answer to entire audience
• Avoid extensive dialogue
• Answer succinctly
• Answer respectfully
Manage Questions

• Avoid arguing
  — “why don’t we discuss that after the talk?”
• If you don’t know the answer, say so.
• Avoid saying “that’s an interesting question”
Get Coached

http://www.newyorker.com/reporting/
2011/10/03/111003fa_fact_gawande
Ed Alter, Founding Partner and Principal Trainer
SpeechSkills
web: www.speechskills.com
phone: 800.994.2042
Resources

• Stahl and Davis. Best Practices for Medical Educators. NEI Press 2009
  (www.neiglobal.com)

• Tufte. The Visual Display of Quantitative Information.
  http://www.edwardtufte.com/tufte/

• Death by Powerpoint (YouTube)
Summary

• Conversation
• Slidemanship
• Performance