Effective Oral Presentations

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Figures removed due to copyright restrictions.
Agenda

- Preparing and Presenting a Technical Talk
- Visual Aids
  - The Perils of PowerPoint
Steps

- Preparing a Talk
- Presenting your Talk
- Supporting your Talk with Visuals
Preparing a Talk

- Audience Analysis
- Time & Focus
- Organization
- Practice
Audience Analysis
Audience

- What is your purpose?
  - What change in the audience do you want to effect?
- What do they know?
- What some of them do not know?
- What do they want?
- What will interest them?
What will keep your audience awake?
Time and Focus

- Organize your talk to fit allotted time
- Talk as Verbal Abstract or Summary
- Cover only 3 or 4 important points
Three-Part Organization

- Tell them what you are going to say
  - Introduction

- Tell them
  - Body

- Tell them what you said
  - Conclusion
Introduction is Funnel
Introduction

- Gives background
- Prompts Interest
- Presents headlines
- Gives roadmap of talk
Place Important Information at Beginning and End

**Audience Recall By Time**

Items Remembered

Percentile of Time of Speech
Body

- Follow roadmap
- Provide clear “road signs” marking transitions
- Repeat important points before moving on to next topic
- Use visuals for emphasis and to increase comprehension
Conclusion

- Two or Three Major Points
- “Take away” message
Practice

- By yourself
- In front of friends
- In actual space
  - Know thy space
Prepare backups

- Overheads
- Backup computers
Delivering the Presentation
Physical Presence

- Don’t fidget
- Look at your audience
- Avoid clicking and clanging objects
- Don’t read your talk
Become Comfortable

- It’s about the content, not about you
- Decide how much you want to move
- Figure out hand placement
- Find friendly faces in audience
  - Have conversation
Vocal Presence

- Speak clearly
- Slow down
- Emphasize key word – avoid monotone
- Practice to avoid um’s, “ah’s, & like’s
- Avoid dropping at end of sentence
Take Breaths
HANDLE QUESTIONS AND ANSWERS

- Listen Patiently
- Repeat the Question
- Answer the Question, No More, No Less
- Make Transition Back to Presentation
- Don't Be Defensive or Bluff: If You Don't Know, Say So
- Offer to Fill in Blanks Later
- Handle "Problem" Questioners
WORK WITH VISUAL AIDS

- Establish Verbal Transition
- Reveal the Visual
- Point to Specifics
- Develop "So What"
- Remove Visual
- Turn Off Projector When Not Needed
Effective Visual Aids
Design effective graphics
Keep it simple
Don’t be fancy
Don’t Be Overly Complex

From “Jean C. Krausea and Louis D. Braid, “Investigating alternative forms of clear speech: The effects of speaking rate and speaking mode on intelligibility”
Focus on information
Not Cuteness
Don’t Make Slides Too Heavy

- The results of this study show that (1) at normal/mid rates, neither the additional training modes examined provided an intelligibility benefit over clear speech. (2) In clear speech training of talkers, the benefits of clear speech training were limited to faster speaking rates than previously reported. Specifically, a form of clear speech training at a slow (roughly 100 wpm) rate. Because the intelligibility advantage of clear/slow over conv/slow and that of clear/normal over conv/normal was comparable to that of clear/quick over conv/quick, it was hypothesized that clear speech could be extended to faster speaking rates (slow through normal), independent of rate, talker, and the additional training modes examined. (3) The fact that m2clear>2<conv, especially at normal/mid rates, is consistent with the physiological constant for articulation. Therefore, the intelligibility advantage of clear speaking rates must decrease more rapidly than the intelligibility of conversational speech. (4) If such conversational speech had been elicited. Moreover, since the training provided in this study increased the cutoff rate, it is possible that additional training could increase the cutoff rate even further.

- Subjective comments regarding the feedback provided during the training procedure indicated that the listener feedback provided during the training procedure was helpful for developing clear speech. In particular, one talker noted that information was useful in deciding which phonemes to emphasize. Other talkers expressed interest in listening to speech distorted by multiplicative noise in order to gain information on how to speak more clearly. This request suggests that some talkers believe they have natural strategies for speaking clearly in difficult communication situations. Moreover, these strategies may differ depending on the nature of the distortion.
Typography

- ≥ 20 pt
- Use bold sans serif typeface
- Do not use serif fonts such as Times New Roman
  - Microsoft’s default font
- AVOID USING ALL CAPITAL LETTERS
Layout

- Landscape (Horizontal) Format
- Try to use a picture with every slide
- Be generous with white space
Color

- Use
  - dark type on light background or
  - light type on dark background
- Avoid red – green combinations
Avoid Using Red and Green Combinations
What is wrong with this slide?
What is wrong with this background?
Text

- Begin with Headline
  - Short for most presentations
  - Whole sentences for scientific presentations

- Limit bullets to
  - 2-4 items
  - not more than two levels

- Keep text block to no more than two lines
The Perils of PowerPoint

- Do Not Use Design Wizard
- Do Not Use Fancy Animation
Do Not Use MS™ AutoContent or Design Wizards

- Microsoft™ is always wrong
- Some fun with AutoContent Wizard
A New Approach to Slide Design From Michael Alley
Rethinking the Design of Presentation Slides

Michael Alley
Virginia Tech

Source: Chapter 4 in *The Craft of Scientific Presentations*
The audience remembers more when you use well-designed slides
For a technical presentation, you should set high goals for the presentation slides

- Slides should help the audience during the talk
- Slides should serve as notes for the audience after the talk
- Slides should serve colleagues having to make the same talk
More effective than using PowerPoint’s defaults is using a sentence headline supported by images.
Our goal is to test a fillet design for turbine vanes downstream of the combustor

Combustor

Turbine vanes

[Pratt&Whitney, 2000]

The goal of the fillet design is to reduce vortices that disrupt the film cooling of the vanes
Our goal is to test a fillet design for turbine blades and vanes downstream of the combustor. The purpose of the fillet design is to reduce vortices that disrupt the film cooling of the blades and vanes.

[Pratt&Whitney, 2000]

The purpose of the fillet design is to reduce vortices that disrupt the film cooling of the blades and vanes.
In Summary

- Plan
- Pictures
- Practice, practice, practice &
Always leave them laughing