Creating Your 20.109 Presentation

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Presentation Basics

According to *The Book of Lists*,
public speaking is the Number One human fear.

Outline

- Before you begin …
- Structuring the presentation
- Principles of effective visual support
- Delivering the presentation

Before you begin…

Oral vs. written communication

- Challenge for the presenter:

    - Time constraint on information presented

- Challenge for the audience:

    - Can't control rate of presentation to match their comprehension
    - Can't re-read sections

Before you begin…

Ask yourself:

- What is the main point I want to make to my audience?

- Why is this interesting or important?

- How do the data support my main point?

- What part of my story can I tell with the data in the allotted amount of time?

Before you begin…

Content is the Key!

- If there is no content, there is no presentation

Know your material and its message

- Collect *more* information than you will use
- Review the experiment
- Review graphs and charts
- Anticipate problem areas

Structuring the Presentation

Tell a story

- Narrative Structure

  - Beginning: **introduction**
  - Middle: **data**
  - End: **summary**

- Show how each section relates to and builds upon the one before it

- Engage the audience's interest as they follow the narrative

Structuring the Presentation

Introduction

- Introduce yourself

- Give the title (and author) of your talk

- **In one sentence, introduce the central question or problem of the experiment**

- State significance of experiment; why should we care?

- Briefly explain necessary background

- Give audience a preview of approach to problem

Structuring the Presentation

Data

- Forms bulk of presentation

- Drawn from Methods, Results and Discussion of paper

  - keep explanation of methods to a **minimum** -- only as much as needed to understand results

  - integrate discussion as you go

- Data are only worth presenting insofar as they relate to your central question

Structuring the Presentation

Summary

- What do you want your audience to remember about your talk?

- Remind your audience of primary findings

- Explain what these findings contribute to the field

Structuring the Presentation

Q & A

- Anticipate questions not covered in the presentation

- OK to bring extra slides

- OK to acknowledge gaps in expertise

  - Explain what you *do* know

Structuring the Presentation

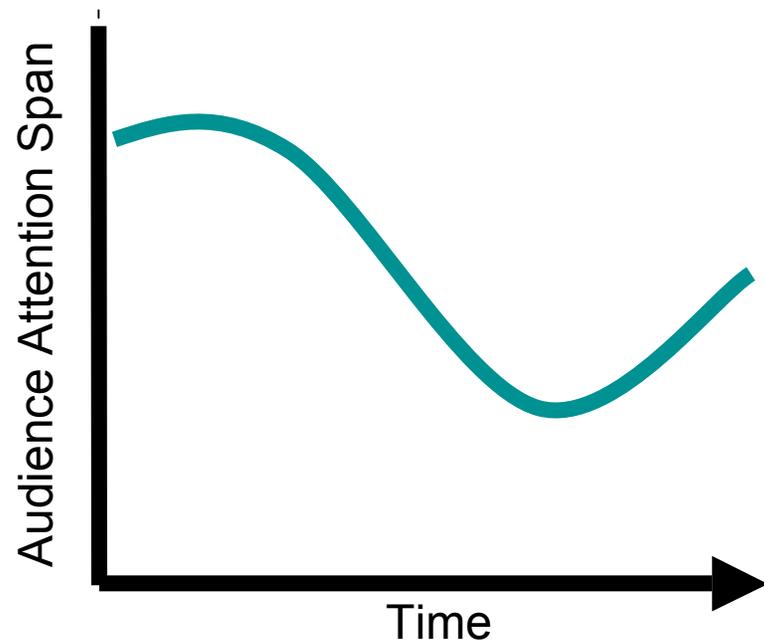**Arrange ideas in a logical sequence**

- Most important point first

- Emphasize key points as you make them

- Provide explicit transitions between points

Guide your audience through the logic of the scientific process!

Structuring the Presentation

Preview and Review

- Map out goals of the talk in advance

  - Use topic sentences in body of the talk

- Summarize

  - at end of each section

  - at end of your talk

Principles of Visual Support

Or: Why use slides at all?

Disadvantages:	**Advantages**:
• disruptive -- pull audience's attention away from the speaker and onto the screen	• can convey a point quickly • add variety and interest • audience recall increases dramatically when the speaker uses **effective** slides

Ask yourself: What specific message are you trying to convey with your visual?
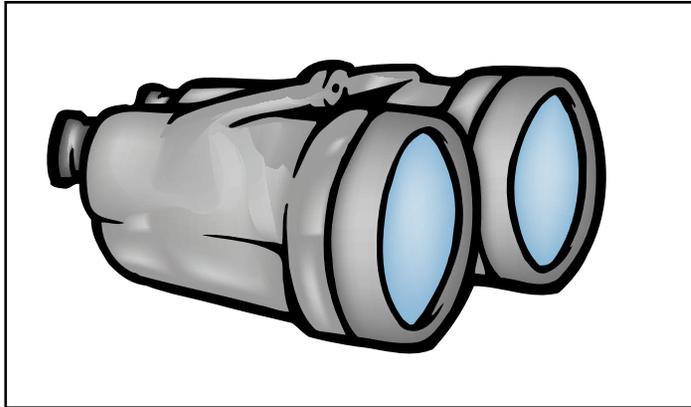
Direct the audience's focus

Figure by MIT OpenCourseWare.

Title all slides

- Headings should clarify the main point of each slide

Use graphics liberally, keep them simple

- Average attention span per slide is 8 seconds

Use clear, explanatory labels for charts and diagrams

- Make sure to label axes!

Less is More

Limit number of slides

Say more than you show

- show primary points on slide; flesh out secondary points verbally

Minimize text

- Don't crowd your slides with a lot of text. Especially, avoid using complete sentences -- or worse, complete paragraphs. Either the audience will become engrossed in trying to read the text, and will stop paying attention to *you*, or else they'll wonder why you didn't just give them a handout already and save yourself the trouble of reading to them.

Avoid potentially annoying animation

- Really.

More Design Principles

Color

- Be easy on the eyes; don't distract from content
- Avoid low-contrast combinations

Type

- Sans serif headings
- Serif bullets
  (serif "feet" make lines for
  ease of reading)
- Type at least 20-24 pt
- Limit upper-case type

Arial
- Times

Verdanda
- **Bookman**

Using graphics in a presentation

What story does this picture tell?

"As shown in Fig. 2, the loss of neuraminidase activity from the super-natant coincides with the disappearance of this 66-kDa protein. This indicates that neuraminidase activity is precipitated via the 66-kDa protein."

Graph removed due to copyright restrictions.

Fig 2 in van der Horst GT, N. J. Galjart, A. d'Azzo, H. Galjaard, and F. W. Verheijen. "Identification and in Vitro Reconstitution of Lysosomal Neuraminidase from Human Placenta." *J Biol Chem* 264, no. 2 (January 15, 1989): 1317–1322.

Neuraminidase activity is precipitated via 66-kDa

Graph removed due to copyright restrictions.

Fig 2 in van der Horst GT, N. J. Galjart, A. d'Azzo, H. Galjaard, and F. W. Verheijen. "Identification and in Vitro Reconstitution of Lysosomal Neuraminidase from Human Placenta." *J Biol Chem* 264, no. 2 (January 15, 1989): 1317–1322.

Delivering the Presentation

Rehearse!

- Practice at least 3 times

- Practice with a colleague for feedback

  - Is your content clear?

  - Do you rock, squirm, gesture too much?

  - Is there room for improvements/adjustments?

- Time yourself

- What 3 questions will your audience likely ask?

Delivering the Presentation

On Presentation Day…

- Arrive early

- Check equipment and voice projection

- Bring a backup of your presentation

How to Connect with the Audience

Put yourself in the audience's place

- Use everyday language and terms

- Explain novel ideas/terms or references

Engage the audience

- Establish eye contact; look at *people*

- Convey enthusiasm; if you aren't excited about your subject, your audience won't be either

A presentation is *two-way* communication

- Pay attention to audience reaction; modify your talk as needed

Standing

- Don't block the screen!

- Stand at a 45-degree angle to the audience

- Keep weight evenly dispersed on both feet

Photo removed due to copyright restrictions.

Gesture and Movement

- Make non-verbal behavior deliberate; avoid extraneous motion

- Some walking adds variety; too much is distracting

- Use gestures that complement your speech's content and are natural for you

- Know what your body language says

Photo removed due to copyright restrictions.

Vocal Issues

Volume

- Project to back of room:
  support voice from diaphragm

Photo of "The Three Tenors" singing removed due to copyright restrictions.

Rate

- Speak at appropriate rate for audience comprehension

- Slow down for especially complex or important content

Pitch

- Keep pitch of your voice at a natural level

- Avoid "uptalk"

Handling Anxiety

- Practice and prepare

- Focus and center yourself

- Breathe

Image removed due to copyright restrictions.
Edvard Munch's "The Scream."

- Have a conversation

Now What?

- Get acquainted with the research

- Design your slides

- Practice your talk

- Deliver your talk

- Meet to review video and slides

Sources

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