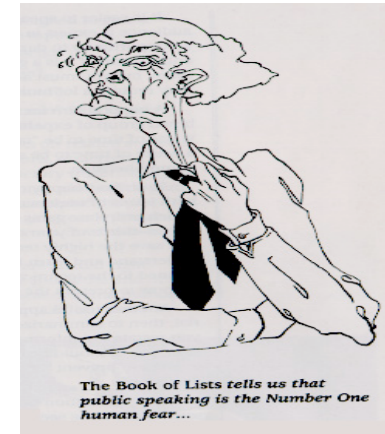

Creating Your BE.109 Presentation

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Outline

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

Presentation Basics



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...

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, middle and end
- Show how each section relates to and builds upon the one before it
- Engage the audience's interest as they follow the narrative

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?

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

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

Summary

- What do you want your reader to remember about your talk?
- Remind your reader of primary findings
- Explain what these findings contribute to the field

Structuring the Presentation

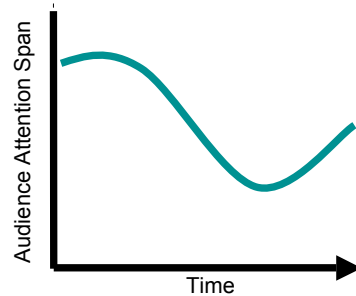
Arrange ideas in a logical sequence

- Most important point first
- Emphasize key points as you make them
- Provide explicit transitions between points

Structuring the Presentation

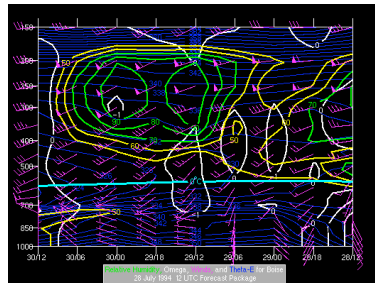
Preview and Review

- 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



Graphics

- Keep them simple
 - Average attention span per slide is 8 seconds
- Title all charts, tables, and diagrams
 - Clarify the purpose of your slide
- Use clear, explanatory labels
 - Make sure to label axes!



How to Design Effective Slides

- Limit number of slides
- Provide explanatory headings for all slides
- Use illustrations and graphics liberally
- 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.

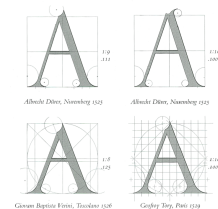
More Design Principles

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



Using graphics in a presentation

What story does this picture tell?

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

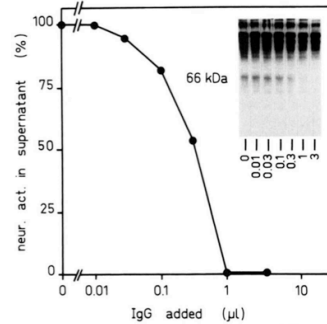
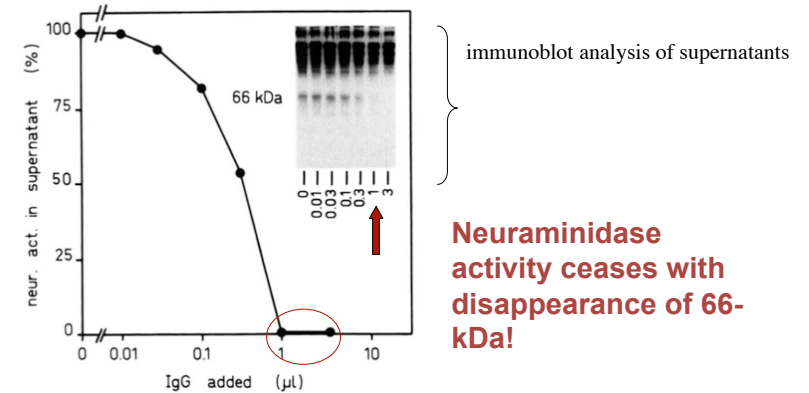


FIG. 2. Immunotitration of activated and stabilized human placental neuraminidase. Activated, stabilized neuraminidase was immunoprecipitated from a human glycoprotein preparation with increasing amounts of an IgG preparation prepared from neuraminidase-specific antibodies. Neuraminidase activity was measured in the supernatants. *Inset*, immunoblot analysis of supernatants using neuraminidase-specific antibodies.

From van der Horst GT, Galjart NJ, d'Azzo A, Galjaard H, Verheijen FW. Identification and in vitro reconstitution of lysosomal neuraminidase from human placenta. *J Biol Chem.* 1989 Jan 15;264(2):1317-1322.

Neuraminidase activity is precipitated via 66-kDa



immunoblot analysis of supernatants

Neuraminidase activity ceases with disappearance of 66-kDa!

Delivering the Presentation

Rehearse!

- Practice at least 6 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

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



Standing

- Don't block the screen!
- Stand at a 45-degree angle to the audience
- Keep weight evenly dispersed on both feet



Vocal Issues

Volume

- Project to back of room: support voice from diaphragm

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
- 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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- Dale Carnegie, Dale Carnegie Associates, Inc., 1962

The Visual Display of Quantitative Information

- Edward R. Tufte, Graphics Press, 1983