Creating Your BE.109 Presentation

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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…

**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

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**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

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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?

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**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.”

![Graph showing Neuraminidase activity precipitated via 66-kDa](image)

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 supernatant, i.e., immunoblot analysis of supernatants using neuraminidase-specific antibodies. From van der Host G, Gajjar NJ, d’Azzo A, Gajjar K, 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](image)

**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

Purpose, Movement, Color: A Strategy for Effective Presentations
  • Tom Mucciolo and Rich Mucciolo, MediaNet, Inc., 1994

The Craft of Scientific Presentations
  • Michael Alley, Springer, 2005

The Quick and Easy Way to Effective Speaking

The Visual Display of Quantitative Information