

Photo removed for copyright reasons.

# Preparing Effective Oral Presentations

Prof. Anders Zetterberg delivering the Presentation Speech for the 2001 Nobel Prize in Physiology or Medicine at the Stockholm Concert Hall.

Photo: Hans Mehlin,  
Nobel e-Museum

<http://www.nobel.se/medicine/laureates/2001/presentation-speech.html>

# Technical Expertise Isn't Enough...

*...you need to be able to communicate effectively.*

**Moving comfortably** from:

- **One-to-one** communication, to
- **Group** discussion, to
- **Public** speaking

- What have you **admired** about oral presentations you've attended?

What can you criticize about oral presentations you've attended?

(Don't mention names)

# Common Pitfalls of Oral Presentations

- Presentations in science and engineering often **fail to inform**. Instead, they:

- **Are needlessly complex.**

- **Fail to accentuate important facts.**

- **Lack enthusiasm.**

See Day, Robert A. *How to Write and Publish a Scientific Paper*. 5th ed. Phoenix, AZ: Oryx, 1998. ISBN: 1573561657.

# Neils Bohr Bored Winston Churchill

During World War II, Neils Bohr tried to warn Winston Churchill about the dangers of atomic weapons.

(He thought that after the war, an atomic weapons race would begin...he wanted to establish guidelines for containing atomic weapons.)

*Churchill broke off the meeting after only fifteen minutes.*

He lost patience trying to understand Bohr.

See Alley, Michael. *The Craft of Scientific Writing*. 3rd ed. New York, NY: Springer, 1996. ISBN: 0387947663.

# Good Speakers

## Connect with their Audiences

Photo of Bill Clinton removed for  
copyright reasons.

- Think in terms of **talking to people.**
- **Look at them.**
- **Observe their reactions.**
- Ask them to offer **comments or questions.**
- Refer to some members of the audience **by name.**

# Speaking to a Group is a Privilege

- Even Nobel Prize winners know this.
- Your **audience must benefit** from the presentation.
- Message should be:
  - **Focused**
  - **Substantive**
  - **Organized**
  - **Adapted to the audience and occasion**



# Speaking to a Group is a Privilege

Oral presentations should be:

- **Concise**
- **Effectively illustrated**
- **Delivered clearly**

# Preparation

Focus your thoughts

Organize your presentation

Practice from an Outline

# Focus Your Thoughts

## 1. Develop a general goal

Inform? Interest? Persuade?

## 2. Develop a precise objective

e.g., After my presentation, listeners will be able to identify my three major conclusions and their implications.

## 3. Develop a one sentence summary to begin your talk

e.g., *My results show the effect of stress induced DNA damage on the DIAP1 gene in Drosophila S2 cells.*

# KEYS to Organizing Your Presentation

## 1. Arrange the main points:

- Categorically
- Sequentially\*
- Spatially
- Comparatively
- Simple to complex

## 2. Outline the body:

- State each main point as a **simple declarative sentence**
- Then fill in the **subheadings**

# KEYS to Organizing Your Presentation

## 3. Prepare an introduction to orient the audience.

*At the last lab meeting, I was having trouble getting my cells to die. Now I have too much cell death.*

## 4. Prepare a conclusion and end with it.

*Don't say "in conclusion" unless you mean it! The concluding remark should be conclusive and you should *stop talking*.*

# Practice from Your Outline

**Type your outline** in large font and refer to it during your presentation if need be.

**Practice your presentation from this outline** but do not memorize it and **do not read** from it during your presentation.

**Tape record** your presentation and listen to yourself.

- Listen for excessive use of “uh” “like” “you know” failure to pause occasionally, and upward deflection at the end of sentences.

# PowerPoint

## PowerPoint Basics

Text

Graphics

<http://office.microsoft.com/home/office.aspx?assetid=FX01085797>

# PowerPoint Basics (checklist)

√ Use unadorned templates.

√ Minimize text.

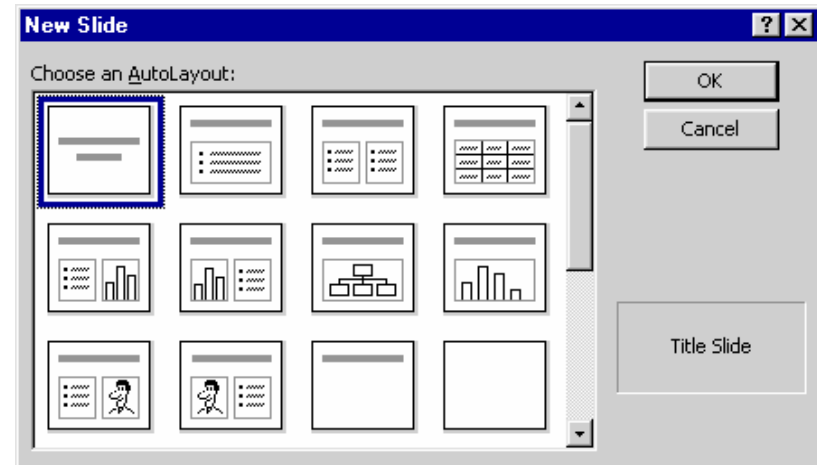
√ Make content self-evident.

√ Standardize:

- Title position
- Colors
- Styles.

√ Sequence logically (use slide sorter).

√ Use effective graphics.





# Text (checklist)

- √ Compose slide titles that indicate slide purpose.
- √ 6 words per line (approx.).
- √ 6 lines per slide (approx.).
- √ Avoid long sentences.
- √ Font size between 18 to 48 point.  
(This is 24 point)

# Graphics (checklist)

- Graphics should enhance and complement the text, not overwhelm
- No more than two graphics per slide.
- Use a pleasing balance of words and images.
- Avoid overcrowding.

Many images removed for copyright reasons.

# How To Make Graphics?

- Scanner (gels, photomicrographs)
- Excel (graphs, charts)
- Internet images (drag and drop)
- Clip art (use sparingly)

# Tufte on PowerPoint

- **GOOD**  
Traditional table: rich, informative, clear
- **BAD**
- PowerPoint chartjunk: smarmy, chaotic, incoherent
- [Wired Issue 11.09](#) - September 2003
- **PowerPoint Is Evil**
- **Power Corrupts.**
- **PowerPoint Corrupts Absolutely.**
- *By Edward Tufte*

# Final Tips

**Get out of your Bubble - Don't read your slides ...  
...look at your audience**

**Make sure you are within the time limit!**

**Use the spell checker**

# For Next Time

## Wednesday, March 3

- Please mail your introductions to me in the morning.
- Please bring them with you to class on your laptop.