Scientific Conference Presentations

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If you are collecting Green Card/Training points, please sign in.
For you if:

• You have been to a conference, but not yet given a presentation at one

• You have already given a presentation at a conference and would like some more tips for next time
In this session

• What makes a good conference presentation?
• What to include
• Structure
• Conference presentations vs other types
• Visual aids
In this session

- Presenting yourself
- Tips for non-native speakers
- What could go wrong?
- Dealing with nerves
- Making your presentation accessible
Overlap

- Body language
- Nerves
- General presentation skills tips

May overlap with other presentation skills sessions
Useful references

1. *Scientific Papers and Presentations* by Martha Davis
2. *Dazzle 'Em with Style* by Robert E. H. Ansholt
The worst conference presentation you ever saw

In groups of ~ 3, introduce yourselves and then talk about the worst conference presentation you witnessed.

What made it so bad?
Simple presentation structure

1. **Tell them what you’re going to tell them**
   - title, introduction and reason

2. **Tell them**
   - your main story

3. **Tell them what you’ve told them**
   - reiterate your hypothesis and the take-home message from your story
Structure in more detail...
What to include in a conference presentation – ‘the rules’

• Title
• Informative
• Don’t baffle the audience with a complex title

More info in handout.
Introduction

- Hypothesis and objectives
- Rationale and justification for study
- Introduction has logical pattern and relates to other literature and scientific principles
Sidetrack: A word about patents

• If you describe your ‘invention’ to the public before you have registered the patent, it is considered public information, and therefore will not be patented.
Back to the story: Materials and Methods

• Show that your methods are supported by the literature and scientific principles
• Logical, step-by-step process for carrying out the experiment and collecting data
• Explain why you chose your experimental design and statistical analyses
Results and Discussion

- Summarise at the beginning and at the end
- Relate results to objectives
- Limit the number of data points and present them clearly
- Discuss points relating to:
  - other research
  - practical or scientific applications
Conclusions

• Reiterate the main points you want the audience to remember
• Show a list of conclusions and relate them back to your objectives
• Examples of use/application of your findings
Conference presentations vs lab meeting presentations

In small groups:

1. How will the presentation differ from a lab meeting presentation?

2. How will you, the speaker be different?
General Points

• Formal presentation
• Avoid an over-familiar style
• Avoid colloquialisms
• Definitely don’t swear!
Visual Aids

- Professional
- Easy to read
- Not distracting

- resist the temptation to include excessive moving images/noises etc

More info in handout.
How could these slides be improved?
Plasma the fourth state of matter

• As a gas gets increasingly hot, the bonds holding the gas molecule together eventually break.
• The resulting substance contains charged particles – ions and electrons – but is overall neutral.
• This is a plasma.
• Because the particles are charged, they respond to electric fields; because they are charged and moving, they respond to magnetic fields.

\[ F = ma = q \left( E + v \times B \right) \]

• It is in a plasma that fusion occurs – heat up deuterium/tritium gas sufficiently that the deuterons & tritons are moving so fast that they overcome their electrical repulsion.
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Presenting Yourself
- Preparation

• Who are your audience and what do they know?
• What equipment will you have?
• Where is the talk?
• How many people?
• How long do you have?
Presenting Yourself - Preparation

Keeping track of the talk:

• Notes on paper?
• Cards?
• Rely on PowerPoint screen?
• Memory?
• Script?
Practise

- 3 times by yourself
- 2 times in front of friends/colleagues
- 1 more time than you think you need to
Timing

• Allow 1 minute per slide
• Time your rehearsals

REMEMBER: no-one is so important that they should overrun
Non-native speakers of English

• Rehearse often, with a native speaker listening
• Record your presentation and listen for areas for improvement
• Structure your slides so that they can be understood even if your words are not (more images/diagrams)
Presenting Yourself
- Body Language

• Face the audience
• Eye contact
• Look out for annoying mannerisms
• Dress appropriately
• Stand up straight
• Lift the head
• Project your voice
During the speech

- Volume
- Speed
- Articulation
- Eye contact
- Ends of sentences audible
- Monotony!
Using emphasis

• Change the volume of the voice
• Repeat words or phrases
• Pause
What could go wrong?

What do you worry might go wrong when you give a conference presentation?

Write the scenarios down and we will discuss ways to mitigate/deal with
Nerves

Two types:

- Intangible nervousness – accept the nerves and deal with the symptoms

- Tangible nerves – work hard to reduce the causes - preparation

examples
Nerves

- Dry mouth – water
- Shaky hands – avoid laser pointer/papers
- Shallow breathing – take deep breaths
- Tense muscles – tighten and release
- With practice, nerves make a **better** performance
A word about colours

• Non-differentiation between red and green is relatively common (1 in 25 people)

• Double-check that none of your information is conveyed by colour only
A word about colours

- All cone cells working
- Protanope (red cone cells defective)
- Deuteranope (green cone cells defective)
- Tritanope (blue cone cells defective)
A word about colours

A typical confocal image

protanope (red)  deuteranope (green)  tritanope (blue)
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Summary

• Make sure that your words and your slides are understood and enjoyed by everyone

(someone in the room could be your next employer!)
Handout contains

- Print-outs of slides
- How to structure a presentation
- Visual aids
- Thinking on your feet
- Checklist for your conference presentation
Useful references

Scientific Conference Presentations – Martha Davis

Contact me

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You can find this presentation on the PhD website:

http://www.york.ac.uk/depts/biol/skillsdev/PhDpages/documentbank.htm