9 Delivering research findings as oral or poster presentations

9.1. Introduction

Presentations at scientific meetings are formal and one should keep in mind that you are not presenting to novices on the subject, but rather to a group of very well informed experts, who are really interested in the new knowledge that they can gain from your presentation. Poster presentations at scientific meetings are more informal, though one should keep in mind that the audience remains the same.

The fact that the audience is well informed experts should however never discourage any young scientist to present at scientific meetings, as most well balanced good scientists of stature will also use the opportunity at scientific meetings to positively criticise and build the self-esteem of a young researcher rather than breaking them down. You should keep in mind, however, that all of this will happen with the unspoken golden rule that science is much bigger than any scientist and that the value of solid good scientific argumentation and facts are not negotiable.

Normally all scientific presentations should have the basic structure of scientific documentation and very strict time limitations will regulate the extent of discussion of each of these subheadings. It is however not necessary to guide the audience every time exactly as to which subheading will be discussed next. Remember the most important part of any scientific presentation that is based on research is the results and the discussion of the results.

9.2. Oral presentations

GENERAL GUIDELINES

The following guidelines will ensure that a scientific presentation conveys the correct image of professionalism, thoroughness and scientific accuracy:

- Professional appearance – wear the right clothes (neat, formal, comfortable)
- Art of communication – it is important to be able to communicate effectively with your audience. Things to take into account include; self-image, voice enhancement, enthusiasm, pausing and even a bit of dramatising can help break the boring monotony of a scientific presentation.
- Knowledge of the podium and the facilities in the lecture hall enables the presenter to make use and control all of these facilities in order to support the presentation optimally.
- Do not put all the text on the screen and read it off. Neither should you read all the text from a piece of paper. Recognise the audience. Make use of a pointer whilst presenting the material to the audience.
- Always ensure that the support material is of exceptional quality. Refer to the 'do's and don'ts' of PowerPoint presentations below.
- Don't use irrelevant support material e.g. include photos of your wildlife photography or your family/pet.
- Don't ever be apologetic – this refers to anything even if you have a cold.
- Refrain from irritating manners/habits – do not use excessive hand signs, don't move around so much that it is disturbing, don't use wavering introductory words such as uh, now etc.
- When you have a graph on a slide, explain the axes and indicate what you are talking about.
- Stick to the time limitation. A rule of thumb is that 1 minute should be allocated per slide (excludes title slide and thank you slide)
- Before presenting practice, practice, practice. Be sure you can pronounce unfamiliar words.
- If possible project your presentation in a large room to see that colours project as they should. Use the speakers preview room to see that formatting did not change. Check compatibility between Mac and other word processors.
- If the Chairperson introduces you and gives the title of your presentation -do not repeat.

Make sure you have two copies of your talk or email it to yourself or place it in Dropbox so that you do not get the nasty surprise of your talk vanishing.

POWERPOINT GUIDELINES

- Show data numbers prominently.
- Framing of graphs is not recommended as too many lines are confusing.
- Use lower case lettering: reads faster and takes up less space.
- Titles should preferably be placed on the left, rather than in the middle, because our eyes are accustomed to read from left to right.
- Use only one background colour throughout the presentation.
- Use the same font size for headings on different slides. Good size for headings is 32 and rest of the text 24. Too small text is unreadable.
- Use a font that is plain and will reflect clearly e.g. Arial/Arial narrow.
- Make sure that the contrast between the background and the text colour is good – use dark colours on a light background and light colours on a dark background.
- Place all the headings and text parts on the same height.
- Preferably do not use red and green together as colour blind people will not be able to read the writing.
- Rule of thumb is 5 lines, each with 5 words per slide. Do not have full sentences.
- Include a slide with an appropriate picture or graph for every 5th slide.
- Make use of pictures, graphs, flow charts etc. rather than text and numbers to help tell the story.
- Beware of setting a fixed time to slide before it automatically goes on. If there is a glitch it could lead to problems.
- Condition the audience by using the same colour on graphs for a specific analyte i.e. colour is associated to a certain parameter.

PRESENTATION OF DIFFERENT DATA TYPES ON SLIDES

- *Text:* the design of a text slide should be simple. Use key words
- *Table:* these are usually very busy, thus highlight numbers of importance
- *Bar charts*: ideal to compare statistical data. Stacked bar charts indicate percentage composition.
- *Line graphs*: it is excellently suitable for dynamic comparisons and therefore may be used to indicate a tendency of change over a specific time period or what the relationship between variables is.
- *Pie charts*: is normally very easy to understand, excellent for presentation of relative values and composition.
- *Scatter charts*: indicates distribution of values.
- *Area charts*: express proportional representation, it is often used to indicate and interpret statistical differences as well.
- *Clip art:* can express feelings, attitudes, and experiences.
- *Maps*: are used to indicate distribution, location, etc. Good for epidemiological data.
- *Photos:* provides three dimensional images, clinical photos, microscope photos. See that the enlargement is provided. All photos should be presented and taken at the same magnification.
- *Moving images/Videos/internet:* make sure that it works.

THE TEN RULES FOR MAKING GOOD PRESENTATIONS

1. **Talk to the audience:** The presenter should know the level of the audience – conference covering a specific topic in an area i.e. presenting to experts in the field who are familiar with the terminology and latest developments vs presenting to an entire pathology group where many only have limited knowledge and therefore the talk will be more basic initially so as to introduce them to the field.
2. **Less is more:** If the presenter says too much the main message may be lost.
3. **Only talk when you have something to say:** If you only have preliminary data, do not put in an abstract for an oral presentation but rather opt for a poster. Be sure you have a substantial amount of data that is meaningful. Work that has recently been published or is submitted for publication is usually a good choice.
4. **Make the take-home message pertinent:** If you were to ask someone a week later what you presented, they should remember three points. If it is not the key points, your emphasis was wrong.
5. **Be logical:** There should be a flow throughout the talk. The beginning (introduction) is to set the stage; the story is told in the middle; and the end is the big finish with the take home message.
6. **Treat the floor as a stage:** Presentations should be entertaining but not overdone. If you are not humorous by nature, do not try to be so as it would not work.
7. **Practice and time your presentation:** Don't go off on a tangent, visual cues should be used to help. The more presentations you give the better you will get.
8. **Use visuals sparingly but effectively:** Visuals should support what you are saying.
9. **Review audio and/or videos of your presentations:** These can give problems.
10. **Provide appropriate acknowledgements:** Can use logos if too many.

Remember that it takes the audience 15 seconds to decide whether your presentation is worth their attention.

BEFORE PRESENTING

- Introduce yourself to the chair. Provide additional information required e.g. biography, how to pronounce surname before the session starts.

- Make sure that your talk is loaded in the timeslot provided.
- Be on time and stay the entire session.
- Respect the chair's time cues.
- If you do not understand a question, ask for it to be repeated.

9.3. Poster presentations

Scientific posters normally contain the same structural layout that one will find with any scientific document. A number of important facts should be considered when planning a poster:

- Selection of information
- Amount of information
- Organisation of content
- Integration of visual elements
- Creation of focus points
- Correct relationship of elements
- Visual acceptance and acceptability

POSTER TIPS

- The title is important as it catches the eye first.
- Play around with the layout until it pleases your eye. There is no incorrect layout.
- A poster with a background (not overpowering) will attract more attention than a plain one.
- Check that there are no spelling mistakes.
- Avoid cramming the poster with too much text and Figures/Tables.
- Do not simply make an enlargement of your abstract that was submitted.
- See to it that you put your poster up and keep it up for the scheduled duration.
- Be at your poster during poster viewing times.
- If you decide not to attend the conference withdraw your poster in a timely manner.

A poster presentation should basically include the formal scientific part on the poster itself and whilst you are presenting you should discuss and present your data in a relaxed scientific manner.

Good luck with your presentation!

9.4. References

Bourne PE. Ten simple rules for making good oral presentations. PLoS Computational Biology 2007; 3: 593-594.

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Jadoul M. Ten ways to ruin or market your oral scientific communication. Nephrol Dial Transplant 2001; 16: 2119-2123.