

Tips on preparing powerful poster presentations

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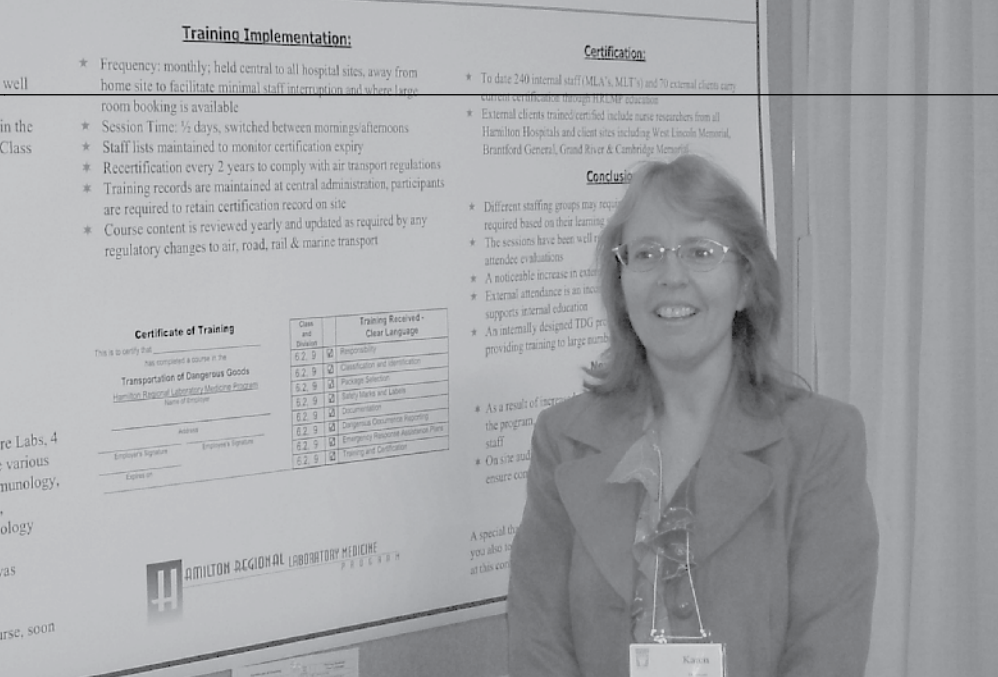
What is a poster?

Posters are an informal means of presenting the results of research projects to delegates at conferences when there is not enough time for everyone with interesting new results to present a full paper. They comprise a visual combination of bold design, colour, and message, and are enhanced by logos, graphs, pictures, and other graphics. They are intended to catch and hold the attention of passers-by long enough to implant a significant idea in the mind. Posters are more efficient than a talk because they can be viewed even when the author is not present.

What is the purpose of a poster?

Posters are intended to:

- catch the eye of someone walking by, provide them with some information about your results, and leave them convinced that your work would be worth knowing about
- visually communicate findings to a group of interested professionals
- demonstrate work in progress, new research results, preliminary findings, and/or ideas
- offer opportunities to interact informally and personally with the people who are interested in your research
- reach people who might not be in your specific field of research
- provide alternative presentation opportunities to novices, to those who might be nervous speaking about a paper, and to those whose first language is not the official language of the conference
- communicate complex data in a simple form
- offer delegates an opportunity to sample many papers and research in a wide range of topics
- create opportunities to network and establish contacts
- establish a detailed outline of a project that can readily be converted into a publishable paper



How do I get my poster accepted at a conference?

Organizers of a conference usually publish a call for poster proposals in advance of the conference in one or more relevant professional publications, and/or on the conference web site. It includes instructions on the format the proposal must take, the deadline for submission of the proposal, and perhaps a template or set of rules to be followed. Usually, all that is required at this stage is a title, author name(s) and contact information, and an abstract of a specific length. Your proposal will be reviewed by consultants for its scientific merit and its relevance to the conference theme and you will be notified well in advance of the conference if your proposal has been accepted. The title and abstract are all the reviewers have to go on in order to decide if your proposal is acceptable, so make sure they are concise, accurate, and a good representation of your work.

What forms does a poster come in?

Conference rules will specify exact size of the space within which you may display your poster. Your display should not exceed this space, but you do not have to fill the entire space. For example, if the display space is 4 by 8 feet, you might choose to create a poster that occupies 3.5 by 5 feet and use the extra space for posting business cards and handouts. If your poster is sponsored by your organization, you may wish to ask if there are organizational standards for poster size.

Posters usually take one of two formats: large single-sheet and multiple panel. Sometimes the choice of format is a matter of cost, convenience and personal taste. The large format may be somewhat more difficult to transport and if editing changes are needed, you have to redo the whole thing. However, it is easier to mount on

the display board. In contrast, the multiple panel format is easier to adapt, repair, or update, and is fairly compact to transport. Some individuals might find the large format slightly more professional-looking than the multiple panel format.

Available budget and graphic art resources will influence the format of your poster. You can inexpensively produce a multiple-panel poster with a graphics software package (such as PowerPoint or even Word) and a color printer. Your output will be limited by the printer's output capacity; for example, to individual components that measure 8" × 11" to 11" × 17". These components will probably need to be mounted on a stiff backing, such as poster board or foam core, to effectively display them.

The alternative is that you can work with a graphic arts department at your institution. (You may need to contact an academic health sciences centre in your region). They can use PowerPoint or sophisticated software programs, such as Quark, to design and create a poster. A moderately priced poster may cost from \$500 to \$600. Find out if your institution has a budget for supporting your production of a poster or your attendance at the conference to present the poster.

What goes into a poster?

There are common elements to all posters, whether they are research presentations or clinical vignettes (case studies). At the top center, the poster should display the title, authors and institutional affiliations. (Any necessary acknowledgments can also be placed here, or at the end of the poster contents).

Scientific posters should follow the IMRAD format (Introduction, Methods, Results, and Discussion). The introduction presents the background and the purpose of the research. It typically consists of a statement summarizing the current knowledge in an area, what knowledge is missing, and how this research project addresses the knowledge gap. A hypothesis can be included in the introduction. The methods section should specifically address the research design and setting, as well as a description of the outcome variables, how they were measured, and the method of statistical analysis. The results section includes the data. Numerical results should include standard deviations or 95% confidence limits and the level of statistical significance. In the discussion section, state concisely what can be concluded from the study and its implications. Qualitative studies may call for a slightly

different format (for example, introduction, research questions, data gathering, findings, discussion).

Posters presenting clinical vignettes generally have three components: Introduction, case description, and discussion. A short introduction typically describes the context of the case and explains its relevance and importance. When describing the case, present in sequence the history, physical examination, investigative studies, and patient's progress and outcome. The main purpose of the discussion is to review why decisions were made and to extract the lesson from the case.

The best posters have just enough text to get across the main points – usually around 200 to 500 words – together with pictures that make the main points even more

Table 1: Quick tips for poster presentations

1. Familiarize yourself with the conference instructions for poster presentations; these may vary from one conference to another.
2. If possible, obtain an example of a poster presentation as a guide.
3. Plan the poster so that visitors can understand the significance of the work quickly.
4. Start with a 25-word summary of your work in clear, concise and jargon-free language.
5. Select the visuals as if they were the only information you have to describe your work, and then write the text.
6. Limit your poster to one to three main ideas; avoid clutter or unnecessary details and keep it short and simple.
7. Use bulleted points where appropriate.
8. As for all forms of research reports, make sure the results support your conclusions.
9. Present only enough data to support your conclusions.
10. Ensure that the material is self-contained and comprehensible; this saves your time for technical discussions and allows viewers to understand your work in your absence.
11. Be sure the essential information (title, author, affiliation, source for additional information) is prominently displayed.
12. Place the title prominently at the top of your display; it should span as much of the display width as possible; make it short and snappy.
13. Use the natural left-to-right, top to bottom flow to display your flow of information.
14. Make sure the text is large enough to be read from 2 to 3 metres; this means that the text font should be no smaller than 18 point and titles at least 20 point.
15. If your poster is too long, shorten the text rather than reducing the font size.
16. Make good use of white space; avoid dark backgrounds; dark letters on a light background are easiest to read.
17. Focus on visual displays of data and small blocks of supporting text that do not exceed 50-75 words per paragraph and 3 paragraphs in sequence.
18. Ensure that your graphics have sufficient resolution to reproduce clearly.
19. Avoid redundancies between the text and graphics.
20. Avoid too many font sizes or gratuitous colours.
21. Choose a simple font and use a high-quality printer.
22. Remember that 'less is more' and 'bigger is better'.
23. Avoid distracting elements such as fancy borders or unusual colours.
24. Proofread the final draft for spelling, grammar and punctuation errors before printing it out.
25. Keep in mind that, if viewers can't read your poster in a few minutes, it's too long.

quickly. Some sections can be presented in outline or bulleted format (not necessarily full sentences) to save space, as long as the ideas are completely clear to the reader.

Be sure to include acknowledgements and references. This includes disclosure of potential conflicts of interest, sponsorship or assistance with the project. It is commonplace for posters to include the logo(s) of their employing or sponsoring organizations.

Table 1 contains 25 tips for creating an effective poster.

How do I present my poster?

The following points will be helpful when it comes time to present your poster at the conference:

- Be aware of conference expectations for mounting and removing your poster.
- Bring along tape, scissors, Velcro, push pins, stapler, business cards (and something to hold them).
- Conference instructions will include a time slot where you are expected to stand beside your poster and be available for questions and discussions with conference delegates.
- Prepare a 2-to-3 minute presentation that you can give periodically to delegates.
- Promote yourself and your work with business cards and/or handouts.
- Don't be disappointed if some people don't stop to chat; if you have prepared the poster well and legibly, they will still be better informed than before.
- Try to interact with your audience.
- Consider using a sign-up sheet to record names and contact information of delegates who want further information.
- Provide 20 to 30 copies of a handout with your poster title, contact information, institutional affiliation, and the sections used on the poster; alternatively, you can create 8 1/2" × 11" copies of your poster to hand out to interested visitors.

Where can I get more information?

There are many online resources with guidelines for preparing poster abstracts. Some are conference-specific and may contain rules not relevant for your intended use; scan these for useful hints. However, be sure to keep your own conference's requirements in mind. The resources listed below may be helpful for you.

Resources

Allegheny College. Poster presentations. <http://webpub.allegheny.edu/dept/psych/PosterPresentations/Posters.html> [July 19 2007]

American College of Physicians/Internal medicine. Preparing a poster presentation. http://www.acponline.org/srf/abstracts/pos_pres.htm [July 19 2007]

Block SM. Do's and don'ts of poster presentation. *Biophys J* 1996; 71:1-5. <http://www.biophysics.org/education/block.pdf> [July 19 2007]

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Info Media. Creating posters. Menlo Park CA: Stanford Linear Accelerator Center; no date. http://www-group.slac.stanford.edu/infomedia/resources/ims_resources_vr_posters.html [July 19 2007]

Malignaggi J. Research project HES5106. How to prepare a poster. http://www.swinburne.edu.au/style/powerpoint/research_poster_design.pdf [July 19 2007]

Purrrington, C.B. 2006. Advice on designing scientific posters. <http://www.swarthmore.edu/NatSci/cpurrrin1/posteradvice.htm>. [July 19 2007]

Richison G. Scientific literature and writing: Poster presentations. <http://people.eku.edu/ritchison/RITCHISO//posterpres.html> [July 19 2007]

Tham MT. Poster presentation of research work. <http://lorien.ncl.ac.uk/ming/dept/Tips/present/posters.htm> [July 19 2007]

University of Buffalo Libraries. Poster Presentations: designing effective posters. <http://ublib.buffalo.edu/libraries/asl/guides/bio/posters.html> [July 19 2007]

Wolcott TG. Mortal sins in poster presentations – or how to give the poster no-one remembers. Newsletter of the Society for Integrative and Comparative Biology 1997; Fall. <http://www.sicb.org/newsletters/fa97nl/sicb/poster.html> [July 19 2007]

And on a more colourful note ...

Keegan DA, Bannister SL. Effect of colour coordination of attire with poster presentation on poster popularity. *Can Med Assoc J* 2003; 169(12): 1291-2. <http://www.cmaj.ca/cgi/reprint/169/12/1291> [July 19 2007] ■