

14 A Conference Poster

This chapter covers:

- Attending a conference and presenting a poster: the basics
 - Purpose of a conference poster
 - Advantages and disadvantages of a poster
 - What conference participants dislike in a poster
 - Planning the poster
 - Design of the layout
 - Figures and tables
 - Structure of the text
 - Style of font
 - Final production
 - Checklist
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For a conference, you can be asked to present either an oral presentation of your work (see Chapter 19: *A Seminar or Conference Presentation*, page 231) or a poster. A poster is a very common way of presenting work – particularly postgraduate work – at a conference.

There is a wealth of online information about poster templates and design. Because much of the design will involve your personal aesthetic judgment, this chapter covers only general principles and guidelines

Attending a Conference and Presenting a Poster: The Basics

For poster presentation at a conference, you may also be required to prepare a **conference abstract** and a **paper**. They are all different in their requirements:

1. **You will first be asked to submit an abstract of your work. The required length is usually between one and three pages.**

See Chapter 3: *An Abstract, a Summary, an Executive Summary*, particularly **A Conference Abstract**, page 58.

2. **If you are accepted for the conference, you will then be invited to submit your paper.**

This will be in the form of a standard scientific paper (see Chapter 6: *A Journal Paper*, page 83). You will be given a maximum page number and specific instructions about how to prepare it.

The collected papers – usually from all of the participants and sometimes only from selected ones – will be published in the conference proceedings either in hardcopy or in digital format.

3. If you have been asked to present a poster, you will be given the following information:

- The poster dimensions. The usual format is A0 paper size: 118.9×84.1 cm (46.8×3.1 in).
- The specific time and place in which you display it so that people can discuss your work with you. Most conferences will ask you display it for the whole of the conference and stand alongside for only a short specified time; the larger conferences may ask you to display it for only a short period of the total conference time.

Purpose of a Conference Poster

- To present the main points of your work as an enlarged graphic display.
- To give enough information to inform but to be simple, clear and creative.
- To present it so that it is visually pleasing and does not look too dense, ill-conceived or careless.

An effective conference poster is a blend of selected information and aesthetic design.

Advantages and Disadvantages of a Poster

Advantages

- Presenting a poster is a far less nerve-wracking experience than giving an oral presentation.
- Conference participants can choose to scan posters quickly or study them intensively.
- They are a visual medium and can be presented very attractively.
- You get personal contact with those interested in your work.

Disadvantages

- You do not have a captive audience, as in an oral presentation. You therefore have to attract people to your poster, which will be one of many in the same display space.
- Space is limited, so you have to select the information carefully.
- A poster can take more time and cost more to prepare than the visual aids needed for an oral presentation.
- You may feel somewhat deflated when many people drift past posters and take away very little impression of your work.

What Conference Participants Dislike in a Poster

Opinions that I've collected over 15 years from many hundreds of Ph.D. students have shown that they most dislike the following 12 aspects. This gives us some guidelines from which to work.

1. Too much text. This is by far the common and fervent complaint.
2. Text is too small.

3. No obvious logical flow of the information.
4. Too crowded.
5. Main points not clear.
6. No obvious ‘takeaway message’, i.e. your main conclusion(s).
7. Not enough illustrations.
8. Illustrations too small, too finely drawn.
9. Colour and/or background design interfering with the information.
10. Too many lines on graphs.
11. Photos or web material with not enough contrast or over-enlarged for their resolution.
12. Tables too large, too much information.

Planning the Poster

Planning what to include and how to lay it out are the two most crucial parts of producing a poster.

IMPORTANT: Don’t just use your conference paper with perhaps with a few extra illustrations.

Some presenters adopt the quickest, least creative method and copy/paste their paper almost unaltered into the poster. The result is very poor: too much text, dense, squashed, overwhelming and discouraging to read.

Planning steps

Remember: What looks clear on your monitor can look very different when printed.

Step 1: Plan a tentative title.

(For information specific to a poster title, see *A Conference Poster Title*, Chapter 2, *The Core Chapter*, page 20.)

- This will need to be done long in advance of the conference, in some cases as much as 6 months.
- **The title should not only contain the key information but also draw the attention of the poster viewers.** For this reason, it can be shorter, punchier and possibly more querying or controversial than a title for a journal paper. However, questions as titles can not only be provocative, but they can also imply that your results are in question.

You also need to take account of its length. If it’s too long, it will take up too much room because of the large font. In effective posters, the title font can be between 50 and 90 point type.

Step 2: Decide on your main points.

Define the ‘take-home message’, i.e. the main conclusions of your work. What do you *most* want people to remember about your work after viewing your poster?

Step 3: Make sure you know the size and orientation of your poster.

The organisers are likely to require A0; however, it could be different. The size will determine how much to limit the information; the orientation (portrait or landscape) will determine the layout.

Step 4: Decide on the illustrations to include, and then plan the poster around them so that they tell the story.

- Make the illustrations as self-explanatory as possible. Most viewers look more at the illustrations than the text.
- They should be simple and have proportionately chunkier lines and larger labelling than those in your paper.
- To avoid using too many words, use schematics and flow diagrams where possible.

Step 5: Choose a template.

You could use one from your presentation software or from the many online suggestions, or design your own. Some of the suggested standard templates are poorly designed and coloured.

Step 6: Select your information rigorously.

You will probably want to put more information into a poster than is realistic. You have to be extremely selective.

Step 7: Work out how you are going to show the logical structure of your material.**Step 8: Decide how to limit the amount of detail.**

Too many presenters think that a poster packed with information gives the impression of productive research. It doesn't; instead, it's likely to obscure the central ideas. Remember that very few people will read every word of a densely packed poster.

Most viewers of a poster want something that looks clear and easy to absorb; however, there will always be a very few people who will argue for including lots of detailed material. The following are Arguments for limiting the information are:

- Participants' dislikes (see the list above, page 154).
- Viewers absorb the information much more readily if a few points are clearly stated and presented well, rather than given as a mass of detailed information.
- Level of lighting may be poor; background noise level may be high.
- Participants who are particularly interested in your work may have already read your conference paper and will want talk to you about the detail.
- Consider giving a handout sheet with more information instead of including it all on the poster.

Step 9: Plan for the text and illustrations to be easily read from a distance: the usual advice is from 2 m.

This means you must use a *large* font: 24 point for the main text is a good lower limit, 28 point is better. Be careful: this will probably look uncomfortably large on your monitor, so that you might opt for a smaller font that turns out to be too small.

Graphic artists tend to opt for a larger font size for effect, e.g. 30 point. Be careful; too large of a font size can make your poster look superficial. You need to tread a fine line between illegibility and superficiality.

Design of the Layout

A wealth of information is available online concerning layout design. It is difficult to give absolute advice about poster design. Some people have an instinctive feel about the aesthetics of design, and others do not. It's also a matter of personal preference.

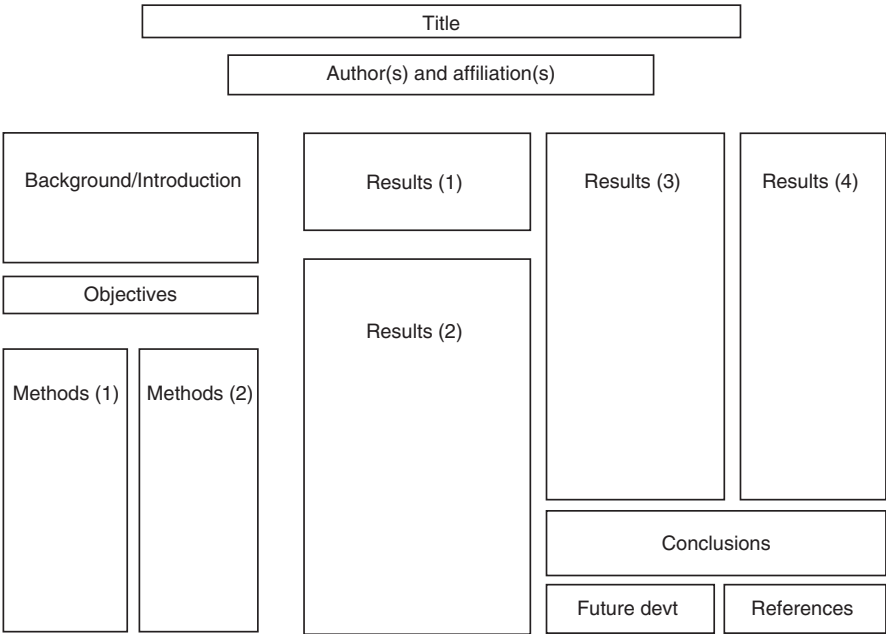


Figure 14.3 A simple, conventional poster layout where the flow of information is obvious.

If you do want to use some of the *TAIMRAD* headings, the following table gives some information about how to use them in a poster and the relevant cross-references to more detailed information in the book.

Section Heading	Notes	Cross-Reference to Detailed Information
Title		See Title , Chapter 2: <i>The Core Chapter</i> , page 17. In particular, A Conference Poster Title , page 20.
Author(s) Place of work (usually called affiliation)		See Authorship and Affiliation , Chapter 6: <i>A Journal Paper</i> , page 87.
A very short Abstract, if required. Many people think that an <i>Abstract</i> is not necessary in a poster.	The abstract should be very short : Make sure it contains the bare outline of the methods you used, together with your results and conclusions . Place it in the logical position where people will expect it: at the top, immediately under the title/authors/affiliation, probably to the left.	See Chapter 3: <i>An Abstract, a Summary, an Executive Summary</i> , page 53.

Section Heading	Notes	Cross-Reference to Detailed Information
A short <i>Introduction</i> or <i>Background</i>	This should give the background to your work and include the main references to other people's work.	See Introduction in Chapter 2: <i>The Core Chapter</i> , page 28.
<i>Aim</i> or <i>Objective</i> or <i>Motivation</i>	A brief statement of your objective, either clearly stated in the <i>Introduction</i> or given a brief section to itself.	See Objectives in Chapter 2: <i>The Core Chapter</i> , page 30.
<i>Methods</i>	If you have used a standard method , do not describe it in detail. If the main point of your work is to present a novel experimental method , give enough details of it, and also be prepared to discuss it in detail with the viewers of the poster. Also make sure that your title indicates a novel method (<i>A New Method for ...</i>).	See Methods in Chapter 2: <i>The Core Chapter</i> , page 36.
<i>Results</i>	Best presented as figures with a small amount of linking text. Avoid tables if possible, unless they are absolutely necessary and very simple.	See Results in Chapter 2: <i>The Core Chapter</i> , page 37.
		See Illustrations in Chapter 2: <i>The Core Chapter</i> , page 44.
You may want a short Discussion section. It may not be necessary.		See Discussion in Chapter 2: <i>The Core Chapter</i> , page 38.
A brief Conclusions section	It should be in the form of a short list, concisely worded, starting with your major conclusion. Position it at the logical end of the information flow, probably at the bottom right or centre.	See Conclusions , Chapter 2: <i>The Core Chapter</i> , page 39.
<i>Future Development</i>	It may be particularly relevant at a conference to show how you are planning to extend this work. However, some supervisors are reluctant for this to be included because of possible pre-emption by other groups.	See Suggestions for Future Development , Chapter 2: <i>The Core Chapter</i> , page 41.
A very short List of References , if your poster cites other people's work.	Place in small font either in the relevant boxes or at the bottom of the poster.	See Chapter 15: <i>Referencing: Text Citations and the List of References</i> , page 169, for the conventions.

Figures and Tables

Viewers look first at illustrations

Very often, the illustrations are the only part of a poster that people really study. They should be well-presented, clear and readily understood as far as possible without reference to the text. They should be placed into the relevant boxes (see *Design of the Layout*, page 156 above).

If you are not using boxes, make sure that the illustrations are not scattered around and placed far away from the relevant text citations.

See *Illustrations*, Chapter 2: *The Core Chapter*, page 44, and *Figures for a Journal Paper: General Guidelines*, Chapter 6: *A Journal Paper*, page 102.

Make your illustrations look outstanding

There will be other students in your institution with experience in using software to produce superb illustrations. Don't be afraid to ask them for advice.

Guidelines for illustrations

1. Plan the poster around the figures: use them to tell the story.

Self-explanatory and well-placed figures need very little linking text to be able to convey the storyline.

2. Make each figure self-explanatory.

If you are using boxes Figures in the relevant box are more convenient for the viewer than having to move from figure to text and back again to be able to understand the argument.

If you are not using boxes: Figures should be numbered and positioned as close as possible to where they are mentioned in the text. If the reference in the text to the illustration is made prominent (e.g. by being in bold, uppercase or italics), it is easier for the viewer to cross refer from the text to the illustration or vice versa.

3. Schematic diagrams of equipment and procedures are a good way of avoiding too many words. They are particularly effective in the *Introduction* or for describing methods.

4. Graphs

- Make the points, axes and lines clearly visible from 2 m away.
- Don't use enlarged copies of your paper's graphs. They will appear too thin and spidery.
- Don't have too many lines on one graph.
- Avoid red and green lines. Colour-blind people will not be able to distinguish between them.

5. Tables

Avoid tables if possible. Any tables should contain far less information than those in written documents. They are usually not effective on posters, unless they are extremely simple. If possible, present the information in other ways.

6. Photographs

Make sure that they have good contrast and are not enlarged beyond their capabilities. Unclear or pixelated illustrations look very unprofessional.

Style as in Written Text	Short, Simple, Separated Text Suitable for a Poster
<p>Sandwich composites are used on aircraft because of excellent stiffness-to-weight ratios. However, they have low damage tolerance and are frequently impacted in normal operation because of their locations in the aircraft. To date, virtually no information has been available on the effects of impact damage.</p>	<p>BACKGROUND</p> <p>Sandwich composites on aircraft:</p> <ul style="list-style-type: none">• have excellent stiffness-to-weight ratios• have low damage tolerance• are frequently impacted because of their location. <p>To date, virtually no information has been available on the effects of impact damage.</p>

Figure 14.4 Example of text style as in a conference paper and the same material presented for a poster. Text can be understood much more quickly when it has been separated: here, empty space and a variable left margin have been created by indenting and listing within the text.

Structure of the text

Viewers often scan the text quite rapidly. Therefore:

- **Don't use longish paragraphs as in your paper.**
Use short, simple and separated statements (Figure 14.4).
- **Use informative headings as much as possible, i.e. headings that state the conclusion of the information below each.**
- **Differentiate the headings from the text by using:**
UPPERCASE *or* **Boldface** *or* SMALL CAPITALS *or* A DIFFERENT FONT

Style of font

- **Use a simple font.**
Elaborate fonts are difficult to read and can look unprofessional.
- **Don't use too many fonts.**
The usual guideline is no more than two, but use them discreetly; e.g. one font for the text and one for the headings.
- **Serif or sans-serif font?**
A serif font is one that has fine ticks on the letters, e.g. Times Roman or Palatino. Commonly used in documents, serif fonts are usually regarded as too elaborate to be used in a poster.

A **sans-serif font** is simple, clean and more easily read at a distance and looks more professional for a poster. There are obvious differences in letter shape and the amount of space they use up; e.g. Calibri is significantly smaller and less dense than Arial or Verdana (see [Figure 14.5](#)). Be careful of *Comic Sans* which is a sans-serif font that students love, and many senior academics think looks frivolous.

- **Boldfacing, UPPERCASE and italics.**

Use **boldfacing** only for special emphasis, such as the title and headings. Solid blocks of text in boldfacing can look harsh and be difficult to read.

Use **UPPERCASE** only for headings. Avoid blocks of text in UPPERCASE or **italics**; they are known to be difficult to read and discouraging.

Using colour

Use colour inventively but carefully:

- **Unify the poster elements** with an intelligent use of colour.
- **Make your poster eye-catching.** We are visual people, so colour attracts our attention. But don't make it too raucous; you'll want it to be seen as professional work.
- **Don't use too many different colours.** Vivid, clashing schemes might work; toning colours that complement each other can produce a very elegant result.
- **A good way of introducing colour without it interfering with the information** is to use white-filled boxes for the information and plain or shaded colour for the background.
- **Shaded backgrounds** Beware of shaded backgrounds, if material is superimposed on them. The variations in colour can badly affect the clarity of the information. **Be aware of red superimposed on a bluish background.** Even though it may look clear on your monitor the red becomes difficult to distinguish on the poster.
- **Photos can be used as background**, but even when made transparent, they can badly compromise the information because of the colour and pattern variations.

Overall rule: Choose the background and colour combinations so that the text and illustrations stand out clearly.

Using presentation software

A presentation software package such as Microsoft PowerPoint® can produce superb poster material. However, consider the following:

- Beware of some of the presentation software standard templates: they can be fussy and ill-coloured. Choose carefully and customise the colour, or design your own scheme.
- The standard templates are easily recognisable. Viewers can get the impression of a hasty job.
- Don't be tempted to use the Clip Art images. They are not appropriate in a formal science presentation.

Final production

The background is often provided at the conference.

Most conferences provide free-standing surfaces made up of cork board or fibre-board. You'll be provided with the means of attaching the poster.

For transporting your poster, use a poster tube.

PROPERTIES Sandwich composites have excellent stiffness-to-weight ratios.	Arial, Helvetica
PROPERTIES Sandwich composites have excellent stiffness-to-weight ratios.	Verdana
PROPERTIES Sandwich composites have excellent stiffness-to-weight ratios.	Calibri
PROPERTIES Sandwich composites have excellent stiffness-to-weight ratios.	Comic Sans Beware: many senior academics think it looks frivolous.
PROPERTIES Sandwich composites have excellent stiffness-to-weight ratios.	Univers condensed
PROPERTIES Sandwich composites have excellent stiffness-to-weight ratios.	Times New Roman. Serif font: usually regarded as not suitable for posters—difficult to read.

Figure 14.5 The difference in letter shape and line spacing of various sans-serif fonts suitable for posters, and a serif font for comparison. They are shown in boldface and all are the same font size.

Common mistakes

1. Too much text: this is very common (*as in manuscript*)
2. Too much information is given.
3. Main points are not clear.
4. No clear conclusions are provided.
5. The flow of information is not obvious.
6. If using arrows, the direction of flow is not clear to the reader. Avoid arrows if possible.
7. Too much information is crammed in to attempt to cover too many points.
8. Too much detailed information is provided.
9. The background and/or colour interfere with the information.
10. The font is too small and cannot be read from 2 m.
11. Font style is inappropriate for a poster.
12. Tables contain too much information.
13. Illustrations are too finely drawn and therefore difficult to see.
14. A lack of planning is obvious.
15. Photographs and online illustrations are enlarged beyond their capabilities.
16. Material is too dense causing a lack of empty space.

Checklist for a conference poster

- ☐ Have you planned the poster around the illustrations?
- ☐ Have you avoided trying to present too much information?
- ☐ Does it look as though the information is easily extractable by a viewer?
- ☐ Is the flow of the story self-evident to a viewer?
- ☐ Does the poster look crammed with too much information?
- ☐ Is there only a relatively small amount of text?
- ☐ Is the font size easily readable from 2 m away?
- ☐ Is the text in a simple sans-serif font (*Arial, Univers, Avant Garde*)?
- ☐ Are you sure you want to choose a serif font (*Times Roman, Palatino*), even though most people don't like it in a poster?
- ☐ Is colour used inventively and intelligently?
- ☐ Does the background design and/or the colour interfere with the information?
- ☐ Illustrations:
 - ☐ Are they self-contained, with self-explanatory titles and captions?
 - ☐ Can they be understood in overall terms without needing to refer to the text?
 - ☐ Are the lines thick enough to be seen and the labelling clear?
 - ☐ Have you avoided squeezing the illustrations into spaces left between the text items?
- ☐ Have you avoided tables if possible? If a table is needed, is it simple?