

The art of making good posters

You're done with the research, and now it's time to show the results to the medical community. **Arun Natarajan** and coauthors explain how to make a poster that does your work justice

Posters are a powerful medium for disseminating information. A good poster needs thought and effort to achieve a clear, succinct, and positive impact. The same principles apply whether you want to advertise a product or service, convey a health promotion message, or disseminate research findings at professional meetings.

Attributes of an attractive poster

An attractive poster grabs people's attention. What does the viewer want to know?

- What is this about?—Title
- What are they trying to do?—Aims
- What is the take home message?—Conclusion
- I am interested, how do I find out more?—Introduction, methods, and results

The title

Keep titles punchy. Consider framing them as rhetorical questions or making them comparable with the running head at the top of journal pages (30-40 characters). Use a banner heading in a contrasting colour separate from the main text. Make the title's font the largest in your poster, 2-2.5 times larger than the body text, but do not use difficult to read capitals. Make sure that the presenter is identified, for example, by using an asterisk. Even better, include a photograph, and give an email address for the corresponding author. Logos of funding bodies, hospitals, and universities look good.

Background appearance and layout

Make sure your poster isn't cluttered. Space things out evenly. A light (white) background with uniformly coloured text looks appealing. This goes well in combination with a dark background for the title area with white text. Sharp contrasts of background and text do not work. With a white background opt for a matt print rather than glossy to minimise reflection. Do not use a hotch-potch of different colours, especially gaudy ones, and keep clear of fancy fonts.

Readability

Text must be concise. People tend to shy away from wordy posters. Bulleted points are easier to read, but don't overuse them. Body text should be legible from at least a metre away. If you are preparing an A1 or A0 size poster, print a draft out on A4. You should be able to read this easily at arm's length. Small font sizes will suffice for abstracts and references; place them in the top and bottom corners respectively. Arial (title and body text) and Times New Roman (body text) are the preferred fonts. Embolden text in preference to underlining or italicisation.

The sections

- Aims—Should be clearly stated. Sometimes these and the conclusions may be all that people read
- Introduction—Keep this brief, especially if the poster is for a specialised audience. Give the background to the hypothesis that you are testing
- Methods—This section should dwell on key techniques only; spare the details. The methods can often be combined with the results in one section
- Results—Best shown as graphs, images, and tables. Qualitative researchers may include quotations. Use individual headings to describe each figure—don't leave readers to work it out for themselves
- Discussion—Should be focused and kept to a few paragraphs. Add a few words on the implications of your study and its limitations
- Conclusions—Crucial and should match up with your hypothesis and aims
- References—Should be limited to a bare minimum.

Keep reminding yourself that this is not a paper but a poster that may be read by people standing up at the end of a tiring day. Avoid long blocks of text and complex figures, and don't expect your viewer to jump between different sections of the poster.

Does it have visual impact?

Though scientific content is paramount, a simple study can be made to look brilliant by skilful presentation. A symmetrical layout with neat columns looks good from a distance and gives an impression of being organised (like your science). Make sure you have images of a decent size on your poster; these are big attractants and give a quick gist of your content. Print a smaller copy and see if it has clarity and aesthetic appeal. Would your poster catch your eye amid a score of others? No matter how good your content, you must be sure that people will stop long enough to read it. First impressions count.¹

Practicalities

Do you know the shape and size of the conference boards? Remember your own drawing pins (large map pins are better), Velcro, Blu Tack, and double sided tape; never trust arrangements, and make lots of friends at the set-up session. Choose a colour scheme so your poster stands out on any background—add a dark border; use matching pins. Pin your poster as high as possible to allow comfortable reading.

How to design your own poster

Do I need specialist skills?

High street graphics shops offer professional services that apply good design principles. But you will lose some control over your data, and if finances are limited you may wish to create your own artwork. Decide how much your time is worth; should you be creating a poster when perhaps your time is better spent in research or clinical work? Often universities and teaching hospitals will have a design department. Or you can make your own poster using Microsoft Word or, better still, PowerPoint. This saves you design costs. PowerPoint makes designing a poster a pleasure, particularly if you have made a successful one and can store it as a template.

Do I need special materials?

You will need the text, images, and any other data that you want displayed. You will also need a professional printing and laminating service. Most universities and hospitals have printing and reprographics services and will do it for a fee, but check what size posters they can print. You'll also need a computer with PowerPoint installed.

Plan your design

Decide on the exact dimensions of your poster. This may have been decided for you by the conference organisers. A0 (841×1189 mm) is a popular size. Make a plan of what, how, and where you are going to display items. Set up a slide with the appropriate dimensions in PowerPoint.

Common reasons for rotten posters

- Title doesn't stand out
- Background too dark or fussy
- Too much text or data
- Poor aims and conclusions
- Fonts too small
- Blurry images
- Figures inadequately explained
- Sections not arranged logically

Setting up the page

Prepare the entire poster on a single (blank) PowerPoint slide. Select Page Setup from the File menu. Set up your page dimensions according to your poster size—for example, to 118×84 cm for A0 size. Select Portrait or Landscape orientation from the same menu. Chose Landscape if possible, so that your poster can all be near eye level. Click the right mouse button and activate the Ruler; and from the Grid and Guides option in this section, select “Display guides on screen.” This will orient you spatially. Move the guides around to divide the page into different sections. If you hold down control and click on a guide, you can duplicate it and create as many vertical or horizontal divisions as you need. These guides will not appear in print. Your page is now set up, and you can start placing your items.

Text

Use Zoom from the View menu to alter the viewing size. Viewing at 33% for an A0 size poster, for instance, will enable you to work with ease. Choose the Fit option from the same menu to view the poster as a single slide or 100% to see what it will look like full size. Text can be typed or copy and pasted into text boxes. Make sure that the drawing and formatting toolbars are displayed by selecting Toolbox from the View menu and then select Drawing and Formatting—this will make your job easier. After selecting the required font size, insert a text box from the drawing bar and copy and paste the text into it. You can also create the title in this way. Bullets and Numbering (right click) can be used for text. Many bullet shapes, colours, and numbering formats are available (choose Customize). Tables are best copy and pasted from Word and then formatted in PowerPoint.

Formatting images

All pictures, tables, and graphic images can be formatted in PowerPoint. To format an image, click on it and then move, size, and rotate it. Enlarge or reduce images by dragging their corners, rather than the middle of their edges, which will stretch them. Select Format after a right mouse click to alter colours, margins, and so on. For graphs imported from graphics packages, double click and then you can format separate elements. Use Text Box and Arrow on the drawing toolbar to label images.

Images quality

Images are best in TIFF or JPEG formats (choose them in the Save As box in your graphics package). Import images into PowerPoint using Insert, rather than by copy and pasting, to ensure better quality. Images must have sufficiently high

resolution. Aim for 300 dots per inch. For instance, if you wish to print an image 10 cm wide, the pixel (picture element or dot) width should be at least $4 \times 300 = 1200$ pixels. Remember that if you set your poster size to 50% when viewing it on your screen, your images will be twice as large when printed. No matter how good the quality of the printer it can only produce what it digitally sees. Copying items from the web is illegal without the express permission of the owner and litigation could ensue. And most images on the web are only 72 dots per inch (one quarter of the required resolution for printing), which is perfectly adequate for viewing on a computer screen. When these images are printed, resolution will be poor, with pixelation and lack of focus. For example, 2.5 cm wide picture from a web page will be only about 72 pixels wide (monitor resolution). If you print it 7.5 cm wide, its printed resolution will be only $72/3 = 24$ dots per inch. This will not have clarity.

Splash a few colours

Use Fill Colour (to fill text boxes and tables), Line Colour (for colouring margins and lines) and Font Colour (to colour text) from the drawing toolbar. Choose the Background option after right clicking to alter colour in the free space. Many colours and minute variations in shades can be achieved using Custom. Fill Effects further enables you to experiment with colour gradients and textures. But remember that less is often more. Don't use too many colours and fonts. Aim for clarity and aesthetics. If your poster looks garish and is difficult to read people will be more inclined to walk away.

Arrange the items uniformly

Place all your items uniformly. Small mismatches can become obvious in the full sized poster. Zoom in to get greater accuracy, and get your placements right.

And finally

Enjoy your poster. Remember its main purpose is to advertise you, your work, and your department, so make the most of this opportunity to attract the people that it will be most valuable for you to meet. 

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1 Smith PE, Fuller G, Dunstan F. Scoring posters at scientific meetings: first impressions count. *J R Soc Med* 2004;97:340-1.

Tips on Finding accommodation during a clinical attachment

Sorting out accommodation is one of the first priorities after getting a clinical attachment. Because of the increasing number of clinical observers, however, getting hospital accommodation is becoming a distant reality. Although these tips are primarily aimed at clinical observers, I am sure they will be of help to any doctor who is considering moving to a new area.



- Medical staffing and accommodation officer—talk to the medical staffing officer, and get the accommodation officer's contact number. Be polite to them; clearly explain your position and request for accommodation
- Sometimes, the accommodation officer may be able to provide some telephone numbers or email addresses of some reliable letting agents
- Ask your medical staffing officer to give the contact number of your consultant's senior house officer, who might give you some valuable tips
- You can also ask medical staffing to give you the phone numbers of other clinical observers working in the same hospital. This would be the best bet, as most of these doctors stay privately outside the hospital
- Ask all of your friends whether they know anyone living in the area you are moving to
- Look for advertisements on the hospital notice boards, doctors' mess, library, and canteen
- Look out for any adverts posted in front of the local grocery shops, especially off licence stores
- Internet—some websites for accommodation are www.fish4lettings.com, www.clubeasy.com, www.spareroom.co.uk, www.flatmateclick.co.uk, and www.easyroommate.com. Another option on the internet is to try and search Google, by typing cheap-accommodation, houseshare, roomshare, bed and breakfast, etc.
- University accommodation—in places where there are local universities (usually in cities), a phone call to the accommodation officer might be of help. Medical staffing personnel can help you to get phone numbers and email addresses
- Adverts in the local newspapers are another source.

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