Why bother putting effort into your poster?

You have a few days to go before the meeting; you’ve been rushing to finish your fieldwork and you’ve not even started your poster. You’ll just throw something together at the last minute as there’s no point making much effort – it’s much better to give a talk, isn’t it?

Well…

- Talks last for 15 minutes, whereas you can show your poster for days
- You might be lucky to have 50 people at your talk – hundreds of delegates attend poster sessions
- The poster session doesn’t compete with concurrent talks by ‘big names’
- People at poster sessions are usually relaxed and chatty, instead of rushing from talk to talk…

A poster can be an incredibly effective way to present research – even if you’re unknown in your field, only have preliminary results, and especially if you hate public speaking.

The only problem is how to make your poster stand out amongst the others. The BES voting criteria for posters are: “visual style, scientific content, originality of the research, and effectiveness of communication”. These are great, but might be a little vague if you’ve left it to the last minute and are unsure what you’re doing.

The absolute basics: KNOW YOUR VIEWER

A poster is not simply a manuscript/journal article in A0 format – it’s a visual representation of your work. Aside from the scientific content of a poster, the single most important consideration is how to use a visual media to get your message across.

There are two types of poster viewers: Hunters and Grazers.
**HUNTERS** read your abstract in the programme booklet and visit your poster because they are interested in the subject.

**GRAZERS** wander round the poster session and stop to look at posters that interest them.

A good poster should ensnare both.

Your average viewer will spend less than two minutes at any one poster. Hunters will (hopefully) spend more time because they’re interested in your research. You only have about 11 seconds to catch the Grazer’s attention.

The best way to do this is with the title; it should be **clear, concise and contain the main message of your poster**. It should also be large enough to read from a distance of 2 – 3m, which means the letters should be at least 2.5cm (1 inch) high.

A good poster should take into account the way we assimilate information: **left to right, top to bottom**. The most important message (**the title**) should be in the centre top position; the rest of the information should flow from top left to top right, then to bottom left and finally bottom right. Newspaper-style columns are a good alternative.

Given that you have so little time to trap your viewers before they move on, only show data that adds to your central message. You probably need some of the usual sections (Introduction, Methods, Results and Conclusions), but alternatives can work magic – as long as they highlight the questions and key results.

It’s also useful to know which parts are most likely to be read. Viewers tend to look at titles and research questions first, then go straight to the conclusions or key results – these really need to stand out. If the viewer is still interested, they might read the introduction and the rest of the results; most people don’t bother with the methods.

Your poster is a **visual representation of your work** and, as a picture speaks a thousand words, show the data in a visual manner – do not force your viewers into lots of reading.

So, what else makes a good poster?
A great poster is...

SUCCINCT

Keep everything short and sweet! There will be hundreds of posters to view and you only have a few seconds to grab and retain attention. Decide on one thing you want people to remember and design the poster around it.

Viewers who are interested in your subject area will stay and chat about details; to get your message across to everyone else, keep information to a minimum.

The title is the only thing everyone reads, so use it to summarise your main message.

A title like: “The effects of urban noise on dormouse growth and development” sounds fine, but “Urban noise reduces dormouse body size” tells you the main result. If you feel daring, go for a more vague title that really captures attention (Specimen 1).

READABLE AND LEGIBLE

Beware the ‘Wall of Text’!

Eyes glaze when faced with large blocks of text, so use bullet points or 1-2 short paragraphs per section. You can also break up text into bite-sized chunks and indent the first line of paragraphs (Specimens 1 and 2).

If you have trouble being concise, write out your message in full and edit until you have a quarter of the word count. Even better – replace text with graphs or photos (Specimen 3).

Font size and line weight on figures should be large enough to read from 2 – 3m (6 – 10ft); this will also ensure the axis labels are legible. Print off an A4 version to check legibility, keeping copies as handouts. Text is even harder to read with grammatical errors, complex sentence structures and misspellings – ask someone you trust to proofread.

There are numerous funky fonts out there, but not all of them are easy to read – especially from a distance. Choose a simple font that can be reduced or enlarged without loss of quality, e.g. Arial, Helvetica or Geneva. Use bold, italics, shadow, or underline to stress parts of the text without sacrificing readability.
WELL ORGANISED

Good spatial organisation helps viewers to quickly find important information. Empty space is essential because it provides visual pauses in which to think; a good rule of thumb is:

20% text, 60% graphics and 20% empty space.

Alternating text and graphics makes the poster easier on the eye, so avoid placing all the text on one side and all the graphics on the other. Images can be used strategically to break up text; creatively use empty space to define the flow of information.

Figure legends should be short and self-explanatory; the size of panels and fonts help emphasise the main points: larger = more important (Specimen 1).

EYE-CATCHING

Use colour and contrast to get attention.

An attractive border or background is an effective use of colour, but only if it enhances your message.

Proper contrast can reduce eyestrain and creative use can make your poster more attractive, e.g. white lettering and lines on a dark background (Specimens 1 and 2).

Stick to a few colours or colour scheme; too many bright colours, background photos or complex graphics will detract from the content. Limit use of red and green for the colour blind.

Try something completely different if you want to catch people’s eye, e.g. Specimen 3.

Check out other people’s posters

Look at posters in your department or at a meeting and ask yourself three things:
   1) What’s good about this poster?
   2) What could be improved?
   3) Does anything catch my eye?

Importantly, look at posters not in your subject area that capture your attention and teach you something.
**Be organised**

It takes time to make a great poster, so set aside several days to assemble all the pieces. It’s a good strategy to prepare the figures/charts/photos first, focussing on your core message and then give yourself another couple of days to bring the pieces together.

Print a week in advance in case there are any issues with colour, fonts, etc.

Before you print your poster, ask someone unfamiliar with your work to look at it – use them to gauge its effectiveness. If they are confused, then the delegates will be, too.

Don’t forget to follow the basic rules for authorship, citation, etc. and identify modifications to images and credit others for their work.

**Last, but not least: DON’T JUST STAND THERE!**

Presenting a poster is an important opportunity to promote your work and get feedback. Treat it as a chance to give a mini, interactive talk; ask viewers if you can explain your work to them instead of waiting for questions. Remember: **enthusiasm is contagious**. People are more likely to remember you and your work if you show pride in your poster and passion for your research!

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**A bit about the author**

Emma Sayer is a postdoctoral research associate at NERC’s Centre for Ecology and Hydrology, as well as a member of the BES Meetings Committee. She initially wanted to go to art school, but ended up doing a PhD in Tropical Ecology instead.

Many of the ideas in this article come from her experience as a judge for student talks and posters as well as from her own triumphs and failures in poster design.

Disclaimer: This article is a guide to designing effective posters – reading it does not guarantee winning the BES Poster Prize!
SPECIMEN 1

An eye-catching title and nice use of contrast.

(Courtesy of Aaron O’Dea, Smithsonian Tropical Research Institute)

SPECIMEN 2

Prize-winning use of colour and layout, using pictures to break up the text.

(Courtesy of Joe Williams, Open University)
This design is slightly unconventional but really attracted viewers! Text is kept to a minimum, using photos, graphs and maps instead.

(Courtesy of Emma Sayer, NERC CEH)