

# Poster Design: Design tips for research poster presentations

1. Intro.....	2
2. Plan: Planning your Poster.....	2
2.1 Week One: Plan.....	2
2.2 Week Two: Design.....	3
2.3 Week Three: Review.....	3
2.4 Week Four: Print.....	3
3. Design: Design Principles to help you.....	3
3.1 Layout:.....	3
3.2 Text.....	4
3.3 Colour.....	6
3.4 Images.....	7
3.5 Graphs.....	8
3.6 Summary.....	8
4. Review: Reviewing your Poster.....	9
Print: Printing your Poster.....	10
6. Present: Presenting your Poster.....	11
Further reading.....	12
Bibliography.....	12
Glossary of Terms:.....	13

# 1. Intro

Welcome! This website is designed to be a support for postgraduate students in collaboration with their course supervisors and lecturers to enhance poster creation and design skills.

A poster is a visual communication tool that serves as a summary of your work and an advertisement of your research area. It is a valuable tool for researchers presenting at a conference as complete strangers may end up being.....collaborators, best critics, generators of PhD-saving ideas, and even future employers.

If this is your first poster - don't worry as this tutorial is aimed at assisting you in designing your very own poster. If you have previous experience in designing and presenting research posters at conferences, this course may help you improve how you currently exhibit your research work at poster presentations.

This tutorial outlines our 5-step approach:

## Plan - Design - Review - Print - Present

### Getting Started:

In producing a poster of your own research project. You will need to:

- Understand the necessity of planning to make a good poster.
- Distill your abstract down to a single central message.
- Illustrate this message with large visual imagery and small blocks of supporting text.
- Understand that if your data is perfect, and presentation is good, your choice of colours, images, graphs, charts and illustrations is what will differentiate you from the crowd.
- Know the prerequisite information that is always displayed in a poster.
- Know what a good/bad poster looks like.

## 2. Plan: Planning your Poster

**Note:** Throughout this presentation we do not reference a particular application for creating your poster. We guide you through the process using tools that are common with all graphics and desktop publishing applications.

However, some tools are better than others for the job so try to best match your software choice to your requirement. As an example, creating a large poster in an application such as Quark Xpress, Adobe Indesign or MS Publisher is going to be easier and quicker than using Powerpoint (for example), which is designed for low-resolution screen output.

We would suggest a free open-source desk top publishing application such as scribus (<http://www.scribus.net>) which will give you professional results at large paper sizes. For graphics work (graphs and diagrams etc), if you don't have access to Photoshop, try one of the many 'cloud' apps available online - splashup (<http://www.splashup.com>) (like Photoshop, it creates images from scratch), fotoflexer (<http://fotoflexer.com>) or picnik (<http://www.picnik.com>) (you need to upload a basic image to edit with these).



To give yourself enough time to successfully design, review, print and present your poster, we suggest that you give yourself a timeframe of 4 weeks to prepare in advance of your deadline.

### 2.1 Week One: Plan

Firstly, consult with your supervisor and discuss your research to date.

With your supervisor, you will need to agree on your abstract, and you will need to simplify this abstract into a meaningful message. From this message, and your research to date, you should have the necessary content for your poster (abstract, methods, results, and conclusions, etc)?

Next, if any of your research involves any Intellectual Property concerns, you will need to consult with your supervisor to see what permissions are required to publish certain elements of your work in your presentation.

Finally, as you know, the poster presentation is due in four week's time, you should contact the conference organisers or visit their website in order to see the submission deadline, presentation guidelines and most importantly, the layout guidelines and print size dimensions of your poster (as these guidelines can vary).

## 2.2 Week Two: Design

Bearing in mind the dimensions and print layout guidelines supplied by the conference organisers, you should begin your design process with a paper-prototype or mock-up using pencil on paper.

Next, based on the conference print dimension guidelines, develop this sketch by creating a digital version in your chosen software application. This will be your 'first draft'.

Before showing it to your colleagues, edit and re-edit your draft by decreasing the volume of text into bite-size sections of 50 to 75 words.

Lastly, increase your poster's visual appeal by adding relevant visual elements such as photographs, charts, tables, and graphs.

## 2.3 Week Three: Review

Next, print your poster at full size (on several A4 sheets), and assemble it on a wall in your research department.

This is a cost-effective means of showing your poster to your research colleagues and supervisor for a peer review session.

Invite colleagues to critique your work, and note all relevant constructive criticisms.

Lastly, make the necessary changes to your poster - this now becomes your second draft.

## 2.4 Week Four: Print

Now that you've redesigned your poster based on the feedback from your colleagues, it's time to print it once again at full size (on several A4 sheets).

Assemble the poster, and show to your research colleagues and supervisor for this second and final peer review session.

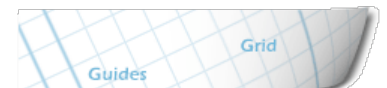
As before, gather all relevant constructive criticisms and make changes accordingly. This now becomes your final poster file.

Prepare this file for print based on your professional printing facility's guidelines.

# 3. Design: Design Principles to help you

The following design principles are aimed at helping you organise, unify, and add visual appeal to your poster.

Typically, visitors to your poster will spend at most 3-5 min at your poster, so it is important that you design your information clearly and illustratively, so that it can be understood within this short window of time.

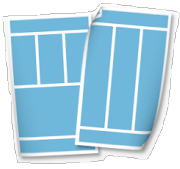


At these events, space is at a premium, so although you will have your allotted poster space, the surrounding space around your poster will be cramped and busy with other people's work.

## 3.1 Layout:

As your images and graphs are often the first items to be noticed and read on your poster, it is important that you know what visual media you are using before you decide on the layout of your poster. This selection of visual media (images and graphs) will have a strong influence on your choice of layout.

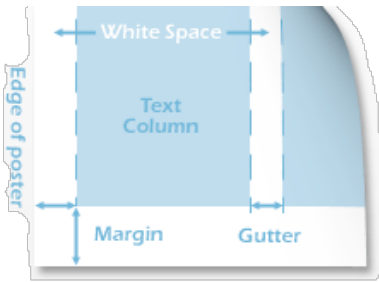
Note: In this example we have decided on a three-columned layout format, but you can choose an alternative layout if preferred. Bear in mind that the human eye likes order, as this adds to easier readability.



**Unity:** Unity is an important concept in design. Try to make all the components on the page appear to be organised, connected, and interrelated. Well designed information in an organised manner is more likely to be read.

**Grids and Guides:** A grid is an invisible structure used to guide the placement of elements on your page. Grids don't appear on the printed poster but their influence may be evident in the widths of column texts, the uniformity of space around graphics, or the consistent placement of repeating elements from section to section.

They are a series of guides that determine the margins of the piece, space between page elements (headlines, body text, photographs, etc.), and let you know where to put things on the blank page.



**Gutters and Margins:** Gutters are the unpopulated spaces between columned text and images. This space breaks the page into readable chunks and helps the viewers eyes navigate through the page. Margins are the spaces between the page content and the edge of the page.

Don't make your reader jump all over the poster area to follow your presentation. Go with the reader's gravity - which draws the visitors' viewpoint from top to bottom (first), and then left to right. Use Column Format. Use grids to line up photos & text. This helps the poster appear organized.

**Exercise:** Examine the layout of a newspaper or magazine article and observe how the information is composed or laid out.

### 3.2 Text

If you wish to experiment, you could look beyond Arial and Times as a different font can set your poster apart and help you stand out from the crowd. However, be mindful of your audience as certain fonts may not be suitable. Also, consider adjusting the kerning and leading for improved readability.

Design your poster as if you were designing the layout for a magazine or newspaper. Select fonts and sizes that work together well. Strive for consistency, uniformity, and a clean readable look.

If you wish to experiment you could look beyond Arial and Times as a different font can set your poster apart and help you stand out from the crowd. However, be mindful of your audience as certain fonts may not be suitable. Also, consider adjusting the kerning and leading for improved readability.



Design your poster as if you were designing the layout for a magazine or newspaper. Select fonts and sizes that work together well. Strive for consistency, uniformity, and a clean readable look.

#### Fonts:

**Serif:** The word 'serif' refers to an ornamentation or structural addition to the font characters. Serif fonts are typically used for body text because they are considered easier to read than sans-serif fonts for this purpose.



### Sans-Serif

In contrast to the ornate serif font, sans-serif fonts are simpler and bolder in design due to the lack of ornamentation. For this reason the sans-serif font is ideal for large striking headlines and for small captions on footers, photos and graphs.



**Kerning** is the adjustment of space between pairs of letters. Some pairs of letters create awkward spaces. Kerning adds or subtracts space between letters to create more visually appealing and readable text.

**Tracking** differs from kerning in that tracking is the adjustment of space for groups of letters and entire blocks of text. Use tracking to change the overall appearance and readability of the text, making it more open and airy or more dense.

**Ligatures:** Two or more letters combined into one character make a ligature. Used primarily to make type more attractive on the page such as the fl and fi ligatures.



## LEADING or Line Spacing

In typography, leading refers to the amount of added vertical spacing between lines of text. This is also referred to as “Line Spacing”.

**Widows and Orphans:** A widow is a very short line – usually one word, or the end of a hyphenated word – at the end of a paragraph or column. A widow is considered poor typography because it leaves too much white space between paragraphs or at the bottom of a page. This interrupts the reader’s eye and diminishes readability.

An orphan is a single word, part of a word or very short line, except it appears at the beginning of a column or a page. This results in poor horizontal alignment at the top of the column or page.

### Tips:

Keep font types to a minimum, use just 2 fonts throughout, a Sans-Serif font for the heading and a Serif font for readability for the body copy.

Stick to a minimal set amount of text sizes, if you have to accent then change the font weight or text leading rather than changing the font size.

Do not use all UPPER CASE type in your posters. It can make the material difficult to read.

If you don’t have enough space to fit all your text, edit ruthlessly to reduce text – Less is More!!

### Font Sizes Table:

Here are the font sizes used in the demonstration poster in the online course. Use these as a guide for your poster, and revise based on feedback from your peer review sessions.

Size	Page Title	Sub-Heading	Body of Text	Fine Print
A1	424px, 101.8pt, 35mm,	169.7px, 40.7pt, 14mm	68px, 16.3pt, 5.7mm	24px, 10.8pt, 3.8mm
A0	600px, 144pt, 51mm	240px, 58pt, 20mm	96px, 23pt, 8mm	64px, 15pt, 5mm

**px:** Pixel Size

**pt:** Point Size

**mm:** Millimeter Size

### 3.3 Colour

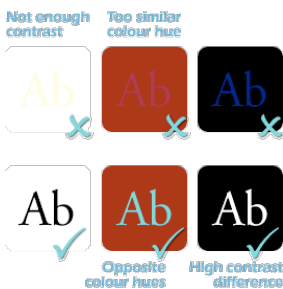
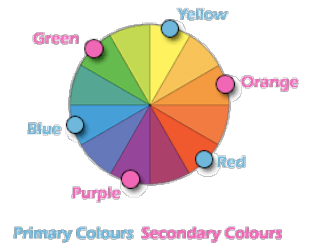
Colours can make a poster attractive and improve readability, however, they need to be used wisely and sparingly.

Use color to attract attention, organise, and emphasise - but don't overdo it. The size, colours and contrast of your information will ultimately impact on the readability or legibility of your final poster design.

All visual media (images, charts, and graphs) should be converted from RGB to CMYK format for print.

RGB: Red, Green, Blue.

CMYK: Cyan, Magenta, Yellow, and Key (Black).



Colours can make a poster attractive and improve readability, however, they need to be used wisely and sparingly.

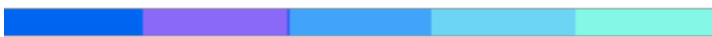
Use color to attract attention, organise, and emphasise - but don't overdo it. The size, colours and contrast of your information will ultimately impact on the readability or legibility of your final poster design.

**Primary Colours** - Red, yellow and blue. These are the 3 pigment colors that can not be mixed or formed by any combination of other colors. All other colors are derived from these 3 hues.

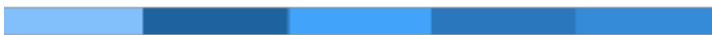
**Secondary Colours** - Green, orange and purple. These are the colors formed by mixing the primary colors.

**Tertiary Colours** - Yellow-orange, red-orange, red-purple, blue-purple, blue-green and yellow-green. These are the colors formed by mixing a primary and a secondary color. That's why the hue is a two word name.

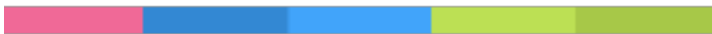
**Analogous** - Match colours with adjacent hues.



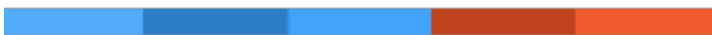
**Monochromatic** - Focus on one colour with variation in intensity.



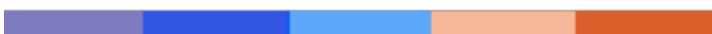
**Triad** - Space your colours around the wheel for a contrasting theme.



**Complementary** - Oppose two colours on the wheel for a simple theme based on two hues.



**Compound** - Combine different hues.



#### Tips:

Avoid overly bright or highly saturated colors – It might attract attention but will tire your viewers eyes.

Limit your colour selection, chose 2-3 colour that harmonise well together and stick with those colours throughout.

Your choice of colours should reflect the theme of your subject area (Life Sciences and Medicine tend to use green/blues/turquoise for example).

If exact colors are important to your data, balance those colors to look correct under fluorescent lighting. Saturated colors may become unpleasant to view.

**Exercise:** Visit some of the websites in your chosen area of research. Do you see common colours being used in this research sector?

Search for an online colour wheel, and create your own colour palette.

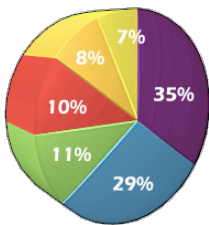
<http://kuler.adobe.com>

<http://www.colourlovers.com>

<http://colorshemesdesigner.com>

### 3.4 Images

A picture, diagram or illustration can speak a thousand words - much more effectively than multiple paragraphs of text, but remember that poor quality visual imagery is often perceived as poor quality research. Likewise, Images without captions creates a poor impression.

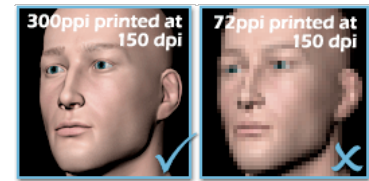


Bitmap Images can be made smaller, but cannot be made larger without degrading the quality of the graphic so it's best to always create at a size larger than required.

Create your graphics or scan your images in at least 300ppi (to print out at 150dpi). The image below shows a low resolution screen grab printed at 150dpi, you can see the reduction in quality compared to the original 300ppi image.

#### Pixels Vs Dots:

Pixels-per-inch - PPI is the term used for the resolution of your image as viewed from your computer screen. An inch of screen includes 72 closely packed horizontal pixels. Dots-per-inch - DPI is the term used for the physical printing method of most domestic printers.



**Note:** When a digital image is printed, pixels are converted to dots. Dots have spaces between them so 300 pixels become 150 dots and spaces. 300ppi becomes roughly 150dpi. 150dpi is the accepted standard for printing photographic quality images.

#### File Formats:

JPG or JPEG is a compressed image format that works best on 'million colour' photographs. It can be compress into a low file size while preserving much of the clarity.

GIF is a compressed image format that works best on 'limited to 256 colours' graphics.

PNG is a file format, that also saves information relating to areas of the image that are transparent (Alpha Channel).

TIF or TIFF is a lossless compression format where quality and resolution are paramount.

PSD is a Photoshop format that contains information about the various filters and effects within your image prior to compression.

#### Tips:

When importing images into your poster you should check to see that the image resolution is 300 dots per inch. A common mistake is to take an image from the web that is only 72dpi, which looks fine of your computer monitor, but of course looks very poor in quality when used in print projects.

Images and photographs should only be used if they add interest to the display and complement the subject matter. In the eyes of the visitor, poor quality pictures and graphs = poor quality research.

If using microscopic images, ensure that scale information is provided.

## 3.5 Graphs

When illustrating research results, graphs are a powerful tool to simplify complex findings in a clear visual format.

The key point to note is the importance of focusing on relationships between the data, and not necessarily focusing on the the exact values of the research findings.

**Note:** All Graphs must have labeled axes and captions. Failure to include these captions reflects poorly on your research.

As discussed in the image section, all graphical elements of our poster must have a resolution of 300dpi

However, using your chosen graph making software, you may not be able to export images greater than screen resolution. Printing a 72 dpi graph will result in a poor quality image when printed.

The key here is to scale your graphic four times larger than you need it, so that when it does print, it will print at four times the screen resolution (i.e. 288dpi - which is close enough to print resolution).

We strongly recommend that you don't include labels or text titles in your graph when saving, as most graph making software does a poor job of this.

Labels and additional text elements can be added over your imported graphs in your chosen desktop publishing application.

When illustrating scientific research results, graphs are a powerful tool to simplify complex findings in a clear visual format.

**Tip:** The key point to note is to focus on the relationships between the data. Depending on the audience in question, presenters need to decide whether focusing on the exact values of the research findings is absolutely necessary.

- Remove all non-essential information from graphs and tables - Grid lines, detailed ticks on axes, data markers, and grey background etc.
- Label data directly, and avoid using legends as they force the reader to look back and forth to decode your graph.
- Instead of using lines of different thickness, use contrasting coloured lines or different line styles to distinguish different lines in multi-line graphs.
- Minimize abbreviations and cross-references.
- Graphs should be of the same size and scale especially if they are to be compared.
- Captions should either be positioned at the top or at the bottom of the figure.

## 3.6 Summary

- Is the title (or header) large enough to be seen from a distance?
- Is there sufficient space between our title and our body content?
- Introduction: Look at how it matches our conclusion. We have accentuated it by increasing the leading, and we've boxed out each section to create balance and harmony in our poster.
- White space weighting: Is it equal throughout the poster?
- Columns: When using columns, force justify the content in your text block.
- Don't hyphenate words and reflow the text to eliminate this.
- Never leave a single word on its own in a line at the end of a paragraph.
- Graphs and images: Always oversize graph labels, so that they can be seen from a distance.
- Always include a caption for all graphs and images.
- Try putting a one pixel black border line around all photographs.
- Fonts: Limit your choice of fonts to two; one for the header and one for the body copy.
- Colours: Try to limit your use of colours to two or three - remember that less is more.
- Be unique: Try to create something of interest. Flowed the text around human figure helps us stand out.
- Logos: Make sure all logos are print resolution ready.
- Overall: Remember to pay attention to detail. Make sure that all captions are correctly aligned and that there is the same white space weighting throughout the poster.
- References: Follow one of the standard format of referencing material, especially journal articles that support your research. (Max. 5 citations).
- Acknowledgments: "Thank individuals for specific contributions (equipment donation, statistical advice, laboratory assistance, comments on earlier versions of the poster); mention who has provided funding; be sincere but do not lapse too much into informality in this section." (Thanks to [Colin Purrington](#))
- Contact details: "You can use this section to provide your e-mail address, your web site address, or perhaps a URL (or [QR code](#); [example](#)) where they can download a PDF version of the poster or relevant data." (Thanks to [Colin Purrington](#))

Why do we do all this? Well, we want to be unique, creative and we want to stand out from the crowd!



## 4. Review: Reviewing your Poster

Dealing with the scale of the document can be difficult, because when you're looking at an A1 poster on screen, you don't know the following:

- What font size you're supposed to be using.
- How wide your columns should be.
- How to space your content (too little, too cluttered).

Therefore, we recommend that you print out your poster on multiple sheets and review the A1 or A0 scale of the poster before spending a lot of money in reviewing a full quality draft.

Once stitched together, assess whether it is legible, consistent, correctly aligned and spaced. Make sure it's neat, crisp with all the titles in there. Remember, the poster should be self-explanatory - you shouldn't have to be standing there in order for a visitor to understand it.

Before preparing for full scale printing, re-check that you have included all of the necessary information. Here are some common oversights:

- Have you proofed typos one last time?
- Have you used headings to orient readers and convey major points?
- Have you broken your poster up into sections, much like a scientific article?
- Have you displayed all your graphs, pictures, photos, illustrations, etc. in context?
- Have you included your full contact information - including the name of your University?
- Have you included the name of your supervisor/s -and where they're from?
- Have you remembered to acknowledge all contributors to your research (colleagues, volunteers, etc)?
- Have you included the names and logos of your funding organisations?
- Have you included your list of references?
- Will readers be able to contact you?

Next, print, present to your peer group and supervisor, gather constructive criticism and redesign based on feedback.

### Review Cycle

1. Print
2. Present to your peer group
3. Gather constructive criticisms
4. Redesign (proof and prepare for larger printing)

### Printing on multiple sheets:

'Printing to Tiles' means that you can print out the A0/A1 sized document on multiple pages, in order to make one large poster. Using this method of printing, there are crop and trim marks where you can basically trim the pages so that they seamlessly meet. Then you can tape them together to create A0/A1 poster.

If you have an A4 printer and you want to print out your pdf poster at A0/A1 size, simply follow these steps using Adobe Distiller, Adobe Acrobat (or equivalent pdf related software):

1. Select 'Create Multi-Page PDF From Page Tiles' in the file menu.
2. If you find that you cannot select this option, you need to set it up in the print dialog, click done, then do a save as pdf.
3. Note: It is also handy to choose View > Show page tiling before you save to pdf or print.
4. Finally, print as indicated.

Print on multiple sheets. Hang a full-size draft in your dept. with pens and invite colleagues to view. Present to Peer group for critique.

## 5. Print: Printing your Poster

- Many of the problems that can occur, occur at this step in the process... because of this, you need to ensure that you allow the time to make corrections and reprint.
- Source a reputable print company to print your poster and phone them or call into their graphic design team and ask them exactly what the specifications are before you finalise your poster.
- Follow the tips here to limit any problems you might encounter at the final print stage.

### Print Tips:

- Prepare all your graphic assets to a minimum of 300dpi resolution,(photos, illustrations, graphs and charts). This will maintain the best image resolution (quality) when you come to printing your poster.
- For accurate colour reproduction, convert all your images and graphics from RGB to CMYK. Printers print using a 4 colour Cyan, Yellow, Magenta and Black (Knockout) process which differs from the Red, Green, Blue colour space within your computer and display. Converting your images to CMYK before printing the poster will give you a better idea of the final printed colour rendition on your display as you build and also limit conversion mistakes at the printing process. (You may need to use a third party application such as Photoshop, Corel Draw or Gimp for this process).
- Best practice is to supply the print bureau with a 'print-ready' PDF file. Remember to set the PDF exporter application to export to the PRINT format setting, and to convert all images to CMYK and embed all fonts.
- Even if you are supplying the printer a finished PDF file, collect all the separate images, graphs, diagrams and fonts and supply these in a well maintained and appropriately named folder structure so that the print bureau has everything they need to print your poster. Don't forget to supply the build file (Powerpoint, Quark, Indesign etc) and a Word document containing the text from your poster.
- Don't send the only copy of the final poster design on CDR to the printer... make sure you have multiple back ups and keep one copy with you at all times. Printers can, and often lose their clients work!
- Deliver your completed PDF and support files on a PC formatted ISO 9660 CDR or FAT32 USB memory stick. Keep file names short, don't use spaces or irregular characters in your naming conventions and don't forget the .xxx file extension on every file. Many print bureaus are Apple Macintosh based so you will experience less issues if you have the ability to build your poster on a Macintosh but watch out - all bureaus will be able to read a PC disk but not all bureaus may be able to read a mac disk, so If you are on a Mac - save to PC standards!
- Print to high-grade, medium to heavy GSM weight MATTE paper stock. Semi-gloss may look and feel nice but fluorescent lighting will reflect off the gloss paper making your poster hard to read from a distance.
- Do not over-handle your poster before you present. Buy a large diameter tube and keep it rolled loosely or better still keep the poster sandwiched between 2 heavy cardboard or 6mm hardboard sheets.

## 6. Present: Presenting your Poster

Ok, the hard work is done – now you just have to answer questions and to convince others that what you have done is excellent and worthwhile!

Good preparation will ensure that you get the most out of this opportunity to meet interesting contacts within the industry, potential employers, and meet like-minded individuals.

Remember: You are not being judged on your work alone - but on how you present your work and how interesting you make it - i.e. your presentation abilities.

Here are some tips to help you prepare for this event:

### **Presentation Tips:**

- Practice questions and answers before the day.
- Prepare a 3-5 minute verbal explanation / prepare a brief script.
- Present to your lab group (this will be a dry run of your poster presentation).
- Arrive early and hang your poster asap ([check out Hess's Hanging Kit tips](#))
- Dress code is typically smart casual.
- Have a postcard summary handout of your poster for people to take with them.
- You may even want to have some business cards to include with your flier. Put these additional pieces of information (handouts, business cards, reprints) nearby on a table or in an envelope hung with the poster so that visitors can help themselves.
- Bring a notepad - to take down suggestions raised by visitors, as well as pointers from viewing other posters on the day. If judges or external examiners query you on something that isn't on your poster, it is a good indicator of what you should include on your poster next time (much like in a presentation).
- Make sure you know how you arrived at your statistics/quantitative results, as you will almost certainly be asked about this. If anything is extremely difficult to recite verbatim, make sure it is printed on the poster itself or on your summary flier.
- Don't stand directly in front of your poster, preventing visitors from viewing your work.
- During quiet times of the event, walk around to view other peoples' posters and see what you wished you'd done or not, and take pictures of posters that you like (with permission of course).
- If applicable and suited to your research, consider showing your audience a series of photos:
- Save your photographs to an tablet device, then let the photos advance automatically (Optional: Attach the tablet to the poster)
- Consider leaving a pen and pad inviting comments from viewers.
- "If more viewers arrive halfway into your spiel, finish the tour for the earlier arrivals first." (Thanks to [Colin Purrington](#))
- Don't point to text and read it.
- Provide an explicit take-home message.

## Further reading

George Hess / NC State University / Forestry Department / Raleigh NC 27695-8002

Block, S.M. 1996. Do's and don'ts of poster presentations. *Biophysical Journal* 71: 3527-3529.

Briscoe, M.H. 1996. *Preparing Scientific Illustrations: A Guide to Better Posters, Presentations, and Publications*. Springer, New York.

Davis, M. 1997. *Scientific Papers and Presentations*. Academic Press, New York.

Gosling, Peter J. 1999. *Scientist's Guide to Poster Presentations*. Kluwer Academic Press, New York.

Harms, M.I. 1995. How to prepare a poster presentation. *Physiotherapy* 81: 276.

Hess, G. & L. Liegel. 2004. *Creating Effective Poster Presentations*. <http://www.ncsu.edu/project/posters>

Nicol, A.A.M. and P. M. Pexman. 2003. *Displaying your findings: a practical guide for creating figures, posters, and presentations*. American Psychological Association, Washington, DC.

Purrington, C.B. *Designing conference posters*. Retrieved November 6th, 2013, from <http://colinpurrington.com/tips/academic/posterdesign>.

Teixeira, A. 1997. Preparing posters for technical presentations. *Resource* 4: 15-16.

Tosney, K. 2004. How to create a poster that graphically communicates your message. <http://www.biology.lsa.umich.edu/research/labs/ktosney/file/PostersHome.html>

Tufte, E. 1983. *The Visual Display of Quantitative Information*. Graphics Press, Cheshire, CT.

Tufte, E. 1997. *Visual Explanations: Images and Quantities, Evidence and Narrative*. Graphics Press, Cheshire, CT.

Woolsey, J.D. 1989. Combating poster fatigue: How to use visual grammar and analysis to effect better visual communication. *Trends in Neurosciences* 12: 325- 332.

## Bibliography

<http://colinpurrington.com/tips/academic/posterdesign>

<http://writing.colostate.edu/guides/speaking/poster/>

<http://www.ploscompbiol.org/article/info:doi/10.1371/journal.pcbi.0030102>

<http://people.eku.edu/ritchisong/posterpres.html>

[www.biophysics.org/education/block.pdf](http://www.biophysics.org/education/block.pdf)

<http://www.ncsu.edu/project/posters/NewSite/>

<http://lorien.ncl.ac.uk/ming/dept/Tips/present/posters.htm>

<http://www.science.oregonstate.edu/system/files/How+to+make+a+scientific+poster+-+Hess+2004.pdf>

<http://www.pptfaq.com/FAQ00076.htm>

<http://www.ncsu.edu/project/posters/NewSite/documents/hangingkit.pdf>

<http://www.ncsu.edu/project/posters/NewSite/60second.html>

[www.colourlovers.com](http://www.colourlovers.com)

<http://colorshemadesigner.com>

<http://tinyurl.com/rd6a9f> (Microsoft Download Centre's PDF Converter Add-in)

# Glossary of Terms:

**Abstract** - a brief description of the study giving key points about the research. Is somewhat redundant when the poster is about the same topic, but people do include abstracts on their posters. Usually 150 words if unstructured and up to 250 words if a structured abstract is used.

**Aims** - another word for purpose or hypothesis

**Background** - reasons why you chose to study the problem

**Conclusions** - after doing the research, what did you learn from the data?

**Context** - a different word for background

**Data Collection** - the part of methodology concerned with the collection of information about the study group

**Data Analysis** - the statistical analysis part of methodology

**Descriptive Issues** - Similar to methodology

**Design** - similar to methodology, i.e., what study design did you use?

**Discussion** - a discussion of the importance of the results based on their newness. Implications of the findings.

**Findings** - another word for results

**Funding Organization/Agency/Source** - This is also a required section usually placed at the bottom right of the poster. Funding agencies like to see their names mentioned. It's good policy to add this information.

**Future Research Questions** - did your study raise questions?

**Hypothesis/Purpose** - this is your research question

**Image quality:** Image resolution: Image resolution can be measured in various ways. Basically, resolution quantifies how close lines can be to each other and still be visibly resolved

**Implications** - what is the relevance of your study to society?

**Importance** - same as implications

**Intervention** - what did you try to affect the health status (for example) of your participants

**Measures** - part of the methodology

**Methods** - includes observational or experimental subjects, statistical methods, drugs used and how administered

**Main Outcome/s** - what was the result of your study

**Objective/s** - what you intend to study

**Participants/Subjects** - people who participated in the study

**Pixel:** Vector Graphics: are composed of paths, and use mathematical relationships between points (and the paths connecting these points) to describe an image. This enables you to scale the image larger or smaller without compromising the image quality. In effect, you can scale infinitely and still maintain crisp outlines if working with vector graphics.

**Poster:** A poster is simply a static, visual medium that you use to communicate ideas and messages. The difference between poster and oral presentations is that you should let your poster do most of the 'talking'. The material presented should convey the essence of your message.

**Principal Findings** - what did your study tell you?

**Relevance** - importance of your study to the organization

**Results** - summary of the most important results

**Research Question/s** - the hypothesis

**Settings** - the physical location where the study took place

**Statistical Analysis** - the analysis of your data using various statistical tools

**Study Design** - the organization of your study, including statistical analysis

**Study Sites** - where did you study your population?

**Study Population** - the group of people you are studying.

**Visual grammar:** Visual grammar is a graphic hierarchy that helps readers identify the most important parts of your poster.