

Creating an Effective Scientific Poster



Preparation

1. Consider your presentation and printer requirements

- How much space will you be given to display your poster?
- Are there requirements regarding font or graphics sizes?
- **Standard size for posters is 91.4cm x 121.9cm (36"x48")**, but they can be customized.

2. Know your audience

- Who is your audience going to be?
- You will have 3 seconds in which to grab your audience's attention and convince them to stay and explore your poster.
- If they stop, you have 30 seconds to secure their attention by conveying an overall understanding of your subject matter.

3. Organize your information

- Divide your information into main sections.
 - These sections typically include:
 - *Title*
 - *Authors*
 - *Affiliations*
 - *Introduction*
 - *Materials & Methods*
 - *Results*
 - *Conclusions*
 - *References*
 - *Acknowledgements*
- } Group these together in a title banner
- }

4. Distill your message

- Eliminate all but the vital elements of your project.
- Reduce your information to concise statements.
- Whenever possible, reinterpret text as charts, graphs or illustrations.
- Use point form for easy reading.
- **Less is more.** Limit the density of text.
- What is the most important piece of information? Consider making this a focal point.
- Keep your main title concise.

5. Use graphics for impact

- We process images faster than words – take advantage.
- Aim to make 30-40% of your poster visual content.
- Do not use images that are less than 300dpi, if possible.
- **Avoid the use of internet images, both for visual and legal reasons.**

- Crop and enlarge photographs to eliminate unnecessary information and focus attention on significant details.
- Prepare titles and/or captions for your graphics.

Design Principles

Layout

1. Unity

- All parts of the layout should work together to communicate your message.
- Make the most important elements the largest and position them just left and slightly above the center of the poster.
- Build the poster around the dominant element.
- Group similar pieces of information together.
- Print out your poster on 8.5x11" paper. If all the text is readable at this size, and you are happy with the layout of all the components, there is a good chance that it will look good when printed as a full poster.

2. Contrast

- Use a contrasting colour, texture, type, line, box or graphic to highlight the most important element within your poster.
- Consider using boxes to highlight certain elements but don't box every section; this will make it difficult to determine what is most important.
- Contrast directs your audience to what is most important.

3. Consistency

- Ensure that your style is consistent in both text and images.
- For example, all subtitles should be the same font, colour and size.

4. Alignment

- Ensure that text and images are aligned.
- Use a template and gridlines to help align your elements to each other.

5. Open Space

- Open space (the space around paragraphs and images) helps create focal points and direct the viewer's eye.
- Leave a reasonable amount of open space between columns and around titles or your reader may become intimidated by the density and quantity of your information.
- If you feel like you have so much content that you don't have room for open space then you probably need to reduce the content or make the font slightly smaller.

Colour

- Colour schemes should always be created using a standard Red-Green-Blue (RGB) system.

1. Start with 1 or 2 harmonious colours

- Decide on the feel you want your presentation to have (hot/bold, cool, soothing).
- You may want to choose colours that are associated with your subject matter or are prominent within the graphics of your poster.
- Remember, when choosing colours, keep it simple.

2. Keep backgrounds subtle

- Select subtle colours for your poster background.
- A background should never compete with your content for attention.
- For optimum legibility there should be strong contrast between text and background.
- The use of background images (even ones made subtle as “watermarks”) are rarely effective and most often distracting.

3. Use warm colours in moderation

- Warm colours like red and purple naturally grab our attention but too much of them can be overpowering
- Cool colours like greens and blues tend to recede and are a better choice for large areas

Typography

1. Make legibility your top priority

- For optimum legibility, keep fonts in these ranges:
 - Main Title – 90+ pts
 - Subtitles – 36-48 pts
 - Body – 28-32 pts
 - References – 18-24 pts
- Information should flow from left to right, top to bottom.
- Do not write in all capitals.
- Columns are highly recommended, but do not make them more than 40 words in width and keep them equal to one another.
- Use white space between columns and sections to enhance readability.
- Use hanging indents for bulleted information.

2. Use typography to establish information hierarchies

- Use contrasting typefaces, point size, and bold, italic, colour and alignment to enable readers to quickly discern key concepts and information groupings.
- BUT do not use more than two typefaces on one poster
- Stick to common fonts as the machine that prints the poster likely won't have the unusual ones and the font will be replaced with something else.

Software Guide

- Most posters are created using Microsoft Power Point, however, other software is also available.
- If you choose to create your poster in another program (such as Adobe Illustrator, Adobe InDesign, or Corel Draw) you **must** check for compatibility beforehand. You **must** also be prepared to provide a press-ready PDF file generated from the program you use.
- **DO NOT** create a poster in Photoshop, it will create several problems during printing.

PowerPoint Basics

Stage 1: Preparing Your Document

1. Setting page size

- Set your page size and orientation by going to FILE>PAGE SETUP.

2. Creating a background

- Create a coloured background by going to FORMAT>BACKGROUND.
- You may wish to highlight your title with a distinct coloured background
 - Create a box with the box drawing tool and colour it by right clicking on it and selecting 'Format Shape'.

3. Using guides

- Turn on rulers and guides by going to VIEW >RULERS>GUIDES.
 - Rulers should appear at the top and left hand side of your document.
 - Horizontal and vertical guides should appear in the center of your screen.
 - To create additional guidelines hold down CTRL, click on an existing guideline and drag a new one from it.

Stage 2: Inserting Text and Graphics

5. Inserting text

- To copy text into your document from a word processing program, select a section of your text in your word document and copy it.
- In your PowerPoint document select EDIT>PASTE SPECIAL>FORMATTED TEXT (RTF).
- Use the text box handles to adjust your text to fit into your columns.
- If you have done this correctly your text should continue to wrap when you adjust its size.
- Pick tool: selects objects and text.
- Rotate tool: rotates objects drawn in PowerPoint.
- Draw menu: useful tools such as align and arrange and group are found in this menu.
- Autoshapes: pre-formed useful shapes
 - Line drawing tool
 - Arrow drawing tool
 - Rectangle and box drawing tool

- Oval drawing tool
- Text tool: creates paragraph and artistic text
- Word art tool: creates decorative text
- Arrow style tool
- Insert clipart tool
- Colour fill shapes tool
- Colour fill lines tool
- Line weight tool
- Colour fill text tool
- Line style tool
- Create shadow tool
- Create 3D effects tool

6. Inserting graphics

- It is always better to insert graphics from a file than it is to copy and paste graphics from other programs. To place graphics into your document use INSERT>PICTURE FROM FILE.
- To maintain proportions when resizing your graphic, click and drag only the corner handles of the selected image.
- If there are places in which you can put two tables, graphs or graphics side by side in a single column, it is generally appropriate to do so as it will save space.

7. Inserting Charts

- To place graphs, tables and charts from Excel, or a word processing program, use COPY>PASTE or INSERT>CHART/OBJECT.

Stage 3: Finishing Touches

8. Symbols

- Ensure symbols, italics, bold, and superscript characters are correct.

9. Alignment

- Check the alignment of your columns, text and graphics.

10. Logos

- It's a nice touch to add logos to the banner but only do so with permission.
 - Avoid taking logos from the internet as they tend to print poorly.

11. Make copies

- If you are traveling to a conference with your poster, make two digital copies and leave one with a colleague and take the other with you to the conference.
- If for some reason your printed poster is lost or ruined your colleague could courier you another, or you could have one printed.

Common Tasks in PowerPoint

Aligning and Distributing Objects

- Select all of the things that you wish to align. Holding SHIFT allows you to select more than one object.
- To align go to DRAW>ALIGN OR DISTRIBUTE

Moving Objects Forward and Backward

- Select the item that you wish to move and go to DRAW>ORDER

Inserting Bullets

- In PowerPoint go to FORMAT>BULLET

Creating a Chart

- To create a chart go to INSERT>CHART

Superscript and subscript

- In order to change a portion of text to superscript or subscript highlight it and go to TEXT>FORMAT TEXT>FONT, followed by POSITION>SUPERSCRIPIT/SUBSCRIPT

Finishing Touches

1. Use the Zoom Function

- Zoom in 100% and slowly scan your poster from left to right and check that all alignments are even, colours are consistent, fonts match, etc.
- Take a few steps back from your computer and check that the smallest font is still readable.

2. Spell Check

- First, run spell check on your poster
- Read your poster VERY carefully, then read it again, then ask a friend to read it
- Triple check for spelling and/or grammar errors
- Nothing makes a good poster appear sloppy more than poor spelling and grammar

Helpful Links

- BioImage (CBS Printing Studio)
<http://www.cbs.uoguelph.ca/services/bioimage/bioimage.shtml>
- Examples of posters with evaluations <http://www.sinauer.com/knisely/>

Checklist for Assessing Your Poster

Attracting Your Target Audience

- Is the title of the poster concise and in larger font than the rest? Does it stand out?
- Does the title bar include the presenters' names, and the identifier for the school or institution?
- Is the poster's subject matter quickly discernible?
- Is the poster layout visually pleasing?

Delivering the Message

- If you stopped to look at this poster, would you read the text on it?
- Is the subject matter presented clearly and concisely?
- Does the information presented flow logically?
- Is the text readable in terms of linguistic difficulty/scientific language?
- Is the text legible in terms of font choice, size, colour and spacing?
- Have you referenced properly and cited images from the internet?

Creating Visual Impact

- Are the graphics large enough to be seen from a distance of 3 m (10')?
- Are your key points in bullets?
- Are the graphics attractive and relevant?
- Have legends or captions been used to guide the viewer?
- Are sections clearly defined with adequate space around them?
- Have items been aligned?
- Do you have concise summary/conclusions?