Posters with PowerPoint

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What is a Scientific Poster?

• It is a visual aid that supports your oral communication of your research during a poster session
• It should be clear, concise, and accessible
• You must squeeze a lot of information into a small space in a way that doesn't appear cluttered or wordy
• Your challenge is to present as much information as possible in as few words as possible using a visual aid designed to complement you, yet that can be understood without your presence
General Design Tips - Layout

Use a grid layout. Order material top to bottom, left to right. Don’t force the viewer to move their eyes back and forth over long distances. Layout the major sections in a logical order.

Leave plenty of white space. Keep it simple. Leave a good margin.

Sketch several designs on paper first or SNOP (sticky notes on paper)

Figures must be uncluttered and illustrate the important points. Use short, clear labels for all of your figures.

Use the minimum amount of text to get your points across. Most people will only spend 3 to 5 minutes reading a poster.
General Design Tips - Color

A white background is often a good choice for large format posters. If you want a background color use a light color to avoid banding, uneven color, or over-wetting the paper.

Images can make interesting backgrounds. You may want to desaturate, lighten, or blur if the content distracts from your text and graphics.

Use color to define sections or add emphasis. Use a limited number of colors and always try to use them in a way that helps to convey additional meaning. For color borders, select something that draws attention but doesn't overwhelm.
General Design Tips - Text

Text size can vary depending on the size of your poster. Keep the text elements in proportion to each other and the total size of the poster.

To be easily readable the smallest font size, in points, should be at least 4 times the viewing distance in feet.

For example for viewing at 6 feet \([4 \times 6 = 24]\) the smallest font size you should use is 24 point. (this formula assumes good eyesight so use larger sizes if possible)

It is often recommended to use a san-serif font; Arial, Verdana, for titles and serif fonts; Times, Palatino, for body text. But the bottom line is readability.

Use bold and italic for emphasis, not underlines or different typefaces.
Sections of a Poster

Title with Authors and Affiliations

Background/Introduction

Result

Result

Result

Specific Hypothesis/Question

Acknowledgments and References

Summary/Conclusion

Lorem ipsum dolor sit amet, consectetur adipiscing elit

Background

Phasellus bibendum lacinia viverra. Sed suscipit mi luctus molestie mattis luctus vulputate.

Hypothesis

Quisque non massa turpis, quis pretium et.

Result

Nulla at augue hendrerit non malesuada elit arcu.

Result

Integro volutpat neque et orci imperdiet sem amet elementum latus sodales.

Result

Nam vitae vestibulum enim. Aliquam orci vulputat.

Result

Proin enim nisl, augue vitae sodales non, sagittis id nunc. Quisque et tempor nibh.

Result

Pellentesque diam nunc, ultramod in tristique at, osma vero na qua.

Result

Pellentesque neque turpis sem. Pellentesque adipiscing id et ultrices elementum sapien.

Summary

Vivamus a purus nunc. Aliquam elementum, sapien vitae posuere malesuada, augue purus vehicula ligula, at posuere luctus ligula eget orci.

Vivamus a purus nunc. Aliquam elementum, sapien vitae posuere malesuada, augue purus vehicula ligula, at posuere luctus ligula eget orci.
Title of the Research Project

Your name, advisors' name, names of any other collaborators
Name of department, Dartmouth College
Source (you can either put this info here or down towards the bottom in an "acknowledgements" section)

INTRODUCTION

These boxes are about PowerPoints features and tools. The content area of the template are Rectangle Shapes not Text Boxes. Click in each content area to enter text.
Settings: Font, 28 point Times, Margins 0.2, Alignment: Top left. Change as needed.
Resize each box as needed. Delete boxes as needed. Duplicate a box if you need to.
If you use Text Boxes you may have to set their Fill Color if you place them over a colored background, their default is No Fill.

METHOD/PURPOSE

Hypothesis/Question/Purpose/Goal. To highlight your scientific goal, place the question or purpose that drives your science in its own section and not just at the end of your introduction. Ideally, this section will be composed of a single paragraph, perhaps accompanied by a diagram.

RESULTS

Photographs should be selected or sized to be no less than 100 pixels per inch (ppi). This microphotograph of rock crystal is 1650 pixels high and sized to be 11 inches high so it is displayed at 150 ppi. Resolutions above 230 ppi don’t usually add any detail but will increase file size. Zoom in to 100% to verify your images are not pixelated.

Figure 1: figure 2: figure 3: figure 4:

ACKNOWLEDGEMENTS

References and acknowledgements. References, acknowledgments, and other details. Be sure you've credited everyone who has contributed to your study. Your poster might look different for different institutions. Please check with your advisor.
Final Thoughts

As with all communication, poster design is an art form, there is no single recipe for success.

Review, proofread, spell check, print letter size drafts on a regular printer using the “fit to paper” option.

Leave plenty of time for printing. Large formats take a long time to print, and your first print may reveal problems you did not see on screen. A one half size test print will save money and reveal any problems, before the final size print. Allow time to make a second print.

Consult with the person(s) doing the printing about paper choices, file size, printer page orientation and size, font and color issues, and getting the file to the printer (email, CD, memory stick and potential Mac/ Windows file type issues).
Ways We Use Graphs and Charts

• Recording Information
  – From an instrument or manually

• Processing Information
  – Analyze, Extrapolate or Group

• Communicating Information
Using Graphs and Charts Effectively on Posters

• Communicating Information
  – Show trends or conclusions
  – Highlight key information
  – Not necessary to show all the raw data

• Keys to creating a good graphic
  – Clearly defining what you want your audience to understand
  – Add enough information to make your graphic meaningful
  – Subtract anything that is not necessary
JOEY DONUT’S YEAR IN REVIEW

ANNUAL SALES
$292,200.00

ANNUAL REVENUE BY DONUT TYPE

- MAPLE BAR: $93,504
- SPINKLES: $70,128
- JAM-FILLED: $58,440
- BEAR CLAW: $46,752
- OLD-FASHIONED: $23,376

BEST DAYS FOR DONUT SALES

- SUN: 24%
- MON: 8%
- TUE: 12%
- WED: 20%
- THU: 16%
- FRI: 12%
- SAT: 8%

MONTHLY DONUT SALES

- JAN: 30,000
- FEB: 22,500
- MAR: 15,000
- APR: 23,000
- MAY: 30,000
- JUN: 25,000
- JUL: 30,000
- AUG: 22,500
- SEP: 15,000
- OCT: 23,000
- NOV: 30,000
- DEC: 25,000

DONUT SALES BY TYPE

- MAPLE BAR: 32%
- SPINKLES: 24%
- JAM-FILLED: 20%
- BEAR CLAW: 16%
- OLD-FASHIONED: 8%

HIGHEST PERFORMER

- MAPLE BAR: $93,504

LOWEST PERFORMER

- OLD-FASHIONED: $23,376

Infographics: The Power of Visual Storytelling; Jason Lankow; Josh Ritchie; Ross Crooks
The type of graph that is selected and the way it’s designed also have great impact on the message that is communicated.

By switching from a bar graph to a line graph, the decrease in job satisfaction among those without college degrees in their later years is clearly illustrated.
How much information do you need?

Pare down to the most important elements
Academic Salaries

- University President: $321,600
- Provost: $242,600
- Deans: $189,200
- Tenured Faculty: $95,200
- Un-tenured Faculty: $70,000
- Grad Students: $17,800
- Football coaches: $1,057,300
Proper Axis Scale

The scale used for each axis in a line graph can greatly influence the representation of the data and the ability to highlight trends or important data points.
Order Data Sets

Ordering the data sets can help highlight trends, associations or groupings.

(A) Alphabetical ordering

(B) Ordering by medial count

Boxplots representing number of insects caught after applications of six insecticides (data set InsectSprays). In alphabetical ordering is employed, while in right ordering by count. Observe the Good Graph in Right Pan...
Paneled Charts

Sometimes it is better to split charts into multiple panels. In this case the vertical axis scale varies widely; 0 to 25 on the left and 0 to 1200 on the right. To put all of these data points on one chart would compress the first two sets almost into a straight line on the largest scale plot.
Clear Shading

Consider tracing low quality graphics to highlight significant information.
References

• Visualize This; Nathan Yau
• Show Me the Numbers: Designing Tables and Graphs to Enlighten; Stephen Few
• Graph Design for the Eye and Mind; Stephen M. Kosslyn
• Infographics: The Power of Visual Storytelling; Jason Lankow; Josh Ritchie; Ross Crooks
• Designing Science Presentations: A Visual Guide to Figures, Papers, Slides, Posters, and More; Matt Carter