

## The Basics of Conference Poster Design

Posters are a method of communication just like books, web sites or presentations. The better your poster design, the more likely your audience will understand your project.

Posters must be created on computer. Use the method that feels most comfortable to you, but remember that your goal is a professional-looking presentation that will impress and convince your audience.

### Size

Posters must be no larger than 36x48 inches. Any poster larger than that will be dismissed. You will be provided with a table or easel to set up (and that is all). You must provide a trifold or poster board to display your work. In almost all cases, no posters will be displayed on a wall.

### Design

There are many design programs available. The best known are Microsoft PowerPoint and Microsoft Publisher. It is best to use a program that you or your mentor already knows.

Sketch out your ideas early. Print out your photos, illustrations, graphs and other materials. Look at them from a distance. Get someone else to proofread your writing, if possible. Colors may print differently than they appear on your computer screen. You can avoid surprises by printing out a letter-sized proof on a standard color printer.

### Font

Viewers can't read small type from a distance.

- 72 point font for your headings
- 36 point font for caption phrases
- 18 point for the text on your poster

Fonts should be easy to read. Use only one type of font (mixed fonts have an unprofessional look). Avoid the use of too many colors for fonts. Make sure that whatever color and font you have chosen can be read easily in a normal-light situation.

### Printing

If you choose to print the poster on a plotter printer, you have several options:

- 1) The OURCA is happy to announce a partnership with the Tribble Library's Media Center whereby students can now print their conference-quality posters through the OURCA. Posters must be submitted using [this form](#). No posters will be printed without this form; please read the form carefully. Poster guidelines are available below. The OURCA can also help with poster design.
- 2) Use Staples, OfficeMax, or some other office supply store. These are usually quite expensive, but they can print quickly.

## Getting started

Clear design starts with clear thinking. Before you begin shuffling charts, graphs and photos, ask yourself this question: *If my viewer carries away only one idea, what do I want it to be?*

Now write down your answer. This is the theme of your poster, the focal point. Everything you choose to include on your poster should support this theme.

Posters tell stories. Your poster tells viewers what you did, why you did it and what you learned from doing it. The poster should include a statement of the problem investigated, a description of the research methods used (if relevant), results or findings, and a summary.

If it helps, try writing an outline as if you were writing a paper. Are you more visual than literary? Try clustering your ideas in balloons; then link them in order. The goal is to create a road map that will take the viewer from start to finish.

## Mastering the basics

Keep your poster simple and visually uncluttered. Someone standing three feet away should quickly understand what each component is and why it is there. You don't want your audience having to lean in to read the text and see the images. On a poster, columns are easier for the eye to follow than information laid out left to right.

Let's start with the basis basics:

- Each poster should have a title. Any text used on the poster should be created on a computer to guarantee that the type is clear and easy to read.
- Background materials and graphics should have straight edges and even margins.
- Illustrations and photographs should be clear and properly proportioned. Image files should be high resolution (200 dpi or higher), and tiffs or gifs are best. Using the "drop – and-drag" method to adjust the width or height of an image can result in distortion. It is better to resize images using commands such as "image size," "scale," or "fit content proportionately."
- Connect your text to the graphic elements. If a paragraph refers to a diagram off to the side somewhere, say so. For example, "Wind blows over ocean, generates waves (Fig. 1)."
- In most cases, the background of your poster should be a solid color rather than a pattern. As a rule, lighter background colors are better than darker.
- Although every poster (particularly in different disciplines) is different, your poster should include the following (in some form): introduction and hypothesis; method; procedure; results; discussion; and conclusion.
- Be concise. Can you explain something better in a chart? Would bullets make your point more effectively than a solid paragraph? What about photographs? Edit your words ruthlessly. Errors in spelling and grammar are extraordinarily damaging to the effect of your overall presentation.

Assume that no technology will be available at your table. Please provide a handout summary or description of the work, project, program, or research related to the poster; the handout can also be used for references and contact information (email, phone number, etc.).

### **Creating design unity**

Okay, your research is done. You know what you want to say and you understand the basics of how to arrange your information. Now it's time to start building your poster.

Graphic designers create unity through the use of white space, type and color. Let's start with the first element. Despite its name, white space is not necessarily white. White space (sometimes called "negative space") refers to any area not covered by a design element such as a picture, a word, or even just a letter. White space guides the eye and makes the other components stand out. Too much and your viewer's eye will wander. Too little and the result is confusion.

The second design element is the style of type, or font. This font, for example, is called Calibri. If possible, limit yourself to three or fewer fonts. A font can be either "serif" like Times Roman or "sans serif" like Helvetica or Ariel. In general, fonts like Times Roman are better for the text while Helvetica and Ariel are good for titles and to label the figures.

### **A final tip**

Remember good design cannot salvage poor research, but it can keep your good work from being overlooked.

A single example of a bad poster:

**PIGS IN SPACE:  
EFFECT OF ZERO GRAVITY AND  
AD LIBITUM FEEDING ON WEIGHT  
GAIN IN CAVIA PORCELLUS**

Colin B. Purrington  
6673 College Avenue, Swarthmore, PA 19081 USA

**ABSTRACT:**  
One ignored benefit of space travel is a potential elimination of obesity, a chronic problem for a growing majority in many parts of the world. In theory, when an individual is in a condition of zero gravity, weight is eliminated. Indeed, in space one could conceivably follow ad libitum feeding and never even gain an gram, and the only side effect would be the need to upgrade one's stretchy pants("exercise pants"). But because many diet schemes start as very good theories only to be found to be rather harmful, we tested our predictions with a long-term experiment in a colony of Guinea pigs (*Cavia porcellus*) maintained on the International Space Station. Individuals were housed separately and given unlimited amounts of high-calorie food pellets. Fresh fruits and vegetables were not available in space so were not offered. Every 30 days, each Guinea pig was weighed. After 5 years, we found that individuals, on average, weighed nothing. In addition to weighing nothing, no weight appeared to be gained over the duration of the protocol. If space continues to be gravity-free, and we believe that assumption is sound, we believe that sending the overweight — and those at risk for overweight — to space would be a tasting cure.

**INTRODUCTION:**  
The current obesity epidemic started in the early 1960s with the invention and proliferation of elastane and related stretchy fibers, which released wearers from the rigid constraints of clothes and permitted monthly weight gain without the need to buy new outfits. Indeed, exercise today for hundreds of million people involve only the act of wearing stretchy pants in public, presumably because the constrictive pressure forces fat molecules to adopt a more compact tertiary structure (Xavier 1965).  
Luckily, at the same time that fabrics became stretchy, the race to the moon between the United States and Russia yielded a useful fact: gravity in outer space is minimal to nonexistent. When gravity is zero objects cease to have weight. Indeed, early astronauts and cosmonauts had to secure themselves to their ships with seat belts and sticky boots. The potential application to weight loss was noted immediately, but at the time travel to space was prohibitively expensive and thus the issue was not seriously pursued. Now, however, multiple companies are developing cheap extra-orbital travel options for normal consumers, and potential travelers are also creating new ways to pay for products and services that they cannot actually afford. Together, these factors open the possibility that moving to space could cure overweight syndrome quickly and permanently for a large number of humans.  
We studied this potential by following weight gain in Guinea pigs, known on Earth as fond of ad libitum feeding. Guinea pigs were long envisioned to be the "Guinea pigs" of space research, too, so they seemed like the obvious choice. Studies on humans are of course desirable, but we feel this current study will be critical in acquiring the attention of granting agencies.

**MATERIALS AND METHODS:**  
One hundred male and one hundred female Guinea pigs (*Cavia porcellus*) were transported to the International Space Laboratory in 2010. Each pig was housed separately and deprived of exercise wheels and fresh fruits and vegetables for 48 months. Each month, pigs were individually weighed by duct-taping them to an electronic balance sensitive to 0.0001 grams. Back on Earth, an identical cohort was similarly maintained and weighed. Data was analyzed by statistics.

**RESULTS:**  
Mean weight of pigs in space was 0.0000 +/- 0.0002 g. Some individuals weighed less than zero, some more, but these variations were due to reaction to the duct tape, we believe, which caused them to be alarmed push briefly against the force plate in the balance. Individuals on the Earth, the control cohort, gained about 240 g/month ( $p = 0.0002$ ). Males and females gained a similar amount of weight on Earth (no main effect of sex), and size at any point during the study was related to starting size (which was used as a covariate in the ANCOVA). Both Earth and space pigs developed substantial dewlaps (double chins) and were lethargic at the conclusion of the study.

**CONCLUSIONS:**  
Our view that weight and weight gain would be zero in space was confirmed. Although we have not replicated this experiment on larger animals or primates, we are confident that our result would be mirrored in other model organisms. We are currently in the process of obtaining necessary human trial permissions, and should have our planned experiment initiated within 80 years, pending expedited review by local and Federal IRBs.

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**LITERATURE CITED:**  
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Some reasons for its badness:

1. Background image is distracting, wastes ink.
2. Text box backgrounds are dark, which makes text hard to read (and wastes ink).
3. Text box backgrounds are all different colors, for no reason (thus annoying).
4. Text boxes are different widths (and annoying).
5. Text boxes not separated from each other by pleasing "white" space.
6. Text box edges not aligned, which is annoying.
7. Text justified, which causes bad inter-word spacing. Also makes reading harder (brain uses jaggedness of left-justified text).
8. Logos are pretentious (true of any logo).
9. Logos crowd the title.
10. Title perspective is annoying (unless you like Star Wars).
11. Title is in all caps, which is harder to read and obscures Latin name).
12. Title is italicized, which obscures Latin name.
13. Author font and color is annoying (comic sans should be reserved for comic books).
14. Author font color is too loud relative to other text.
15. Too much text.
16. Results are presented in sentences instead of visually with charts.

17. Section headers have more than one type of formatting (big font, bolded, italicized, underlined, *and* colored — ack!). Choose one. [Note: I forgot to number the sections...that would have been even worse.]
18. Terrible graphic of Guinea pig on scale. Need one of the actual set up (pigs eating while weightless, for example).
19. Inclusion of an Abstract gobbles up space needlessly. Abstract section should be banned from posters.
20. Plus the science is terrible! (Bad science is correlated with bad graphic design, by the way.)