

PENNS^TATE



Designing Communications for a Poster Fair

Tips for Success

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Tips for Designing Effective Presentations

A poster with the main title in 1½" sans serif

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with materials donated by Penn State's Education Technology Services*

Get the audience's attention and communicate your message quickly and succinctly.



Caption your images clearly. This is a photo of the design team organizing content: deciding what to eliminate, what to keep, and how to arrange it.

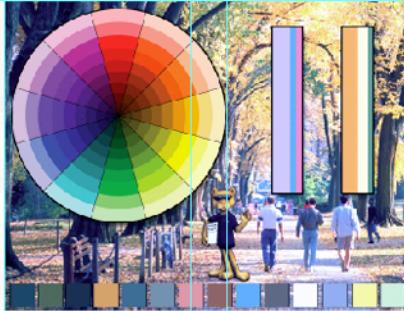
A successful poster presents you and your work clearly and professionally; it encourages the audience to stop to discuss the work with you. This text is 1/2 inch, 26 point Times.

Planning

- Keep it simple
- Develop an information hierarchy
- Think visually

Developing a Layout

- The most important things go first.
- Use a grid to keep items aligned and straight.
- Use a text hierarchy.
- Use a column format.
- Try to keep 40% of the poster area empty of text and images.
- Limit your use of boxes and lines.
- If items go together, put them close to each other.



If you look at the image you can find quite a few colors that could be used to create a color scheme for a poster. It's much easier to coordinate a limited number of colors.



Possibly the world's first black and white color wheel.

Choosing and Using Color

- Maintain a color scheme.
- Keep backgrounds subtle; grays and muted colors help foreground information stand out.
- Use bright, saturated colors sparingly.
- Large amounts of red, yellow or orange can overpower your message.

Selecting Fonts and Using Text

- Use common serif fonts for body text.
- Use sans serif fonts for titles.
- Try to use no more than three fonts.
- Combine both uppercase and lowercase letters.
- Use large fonts that can be easily read from 5 feet away.
- Black text on white has high impact and excellent readability.



"Serifs" are the little cut-off strokes on letters. "Sans" means "without", so sans serif means without little cut-off strokes.



Be careful that you don't lead the viewer away from your poster. Place the images so that they guide the viewer's eyes to the next bit of information.

Judges Checklist

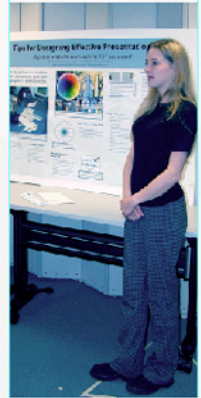
Remember, the following should be clearly presented and readable from a distance of 4 to 6 feet:

- Title of the exhibit
- Student's name
- Collaborator, advisor, and department
- Funding sources
- Regulatory committee approval (if the project involves human or animal subjects or biohazardous materials)
- Objectives
- Significance to the field
- Significance to society in general
- Methods
- Results
- Interpretation of results and conclusions
- Directions for future research

Using Images

- Use meaningful, high-quality images.
- Adjust color and contrast in images.
- Crop or edit images so the important information is obvious.
- Give photos short titles or captions. Label directly on maps, charts, and graphs.
- Simplify charts and graphs.
- Use bold lines in graphs so the data can be seen and understood from 5 feet away.
- Place images so that they're balanced visually in the poster and they help to lead the viewer's eye through the material.

Viewers reading this line demonstrate the poster's success!



This poster has a title in 150 point Helvetica Bold and body copy in 26 point Times. The photographs have been adjusted so they'll print at 100 dots per inch (dpi). It was produced for this class, not a poster fair.

Designing Communications for a Poster Fair

A poster session is a good opportunity to present yourself and your research in a favorable light, to make contacts, and get useful feedback. There will be considerable competition for the audience's time; you'll need to capture their attention and communicate your message quickly and succinctly. A successful poster presents you and your work clearly and professionally; it encourages the audience to stop to discuss your work with you and gives them the opportunity to take any detailed information that you've prepared as a handout.

When you are accepted as a participant in a poster session, you'll be given a set of *Guidelines for Presenters*. These guidelines provide very specific information.

Although every show is different, the guidelines typically will tell you the size of your display area, how long the show will be, whether you'll have a table or not. Some poster session organizers include tips or suggestions for you to consider that are based on their past experience. These suggestions typically include:

- Know your audience so that you can communicate to them most effectively.
- Text should be large enough to be seen from 5 feet away.
- The pieces should be organized in a way that leads the viewer through the display.
- Make illustrations simple and bold.
- The display should be self-explanatory so that you are free to talk.
- Keep displays simple and text brief; a viewer should "get it" in 30 seconds. You can provide in-depth information in a handout.
- A neutral colored poster on matte board is more pleasing to the eye than one on a bright colored background.
- Organize your material and edit your content to eliminate distracting visual noise. When in doubt, edit out; make sure every item is necessary.
- Take a note pad and pen for notes, extra thumbtacks, pins, tape or glue.

The following set of design rubrics (guides) was compiled to expand on the information that participants are normally given.

Planning

How to get started: It's important to know who will view your poster and what you want to tell them. Don't wait until the last minute; start early. Read the information from the Poster Fair organizers. Read this pamphlet. Check some of the listed Web sites if you can access a the internet. Gather your materials so that you can see what you still may need to get while it's still early enough to get it and do any necessary work.

- **Keep it simple.**

List all of the things that you want to say, and put them in the order of importance. Try selecting only the first three points as the focus for your poster.

Remember that this is a poster to give a quick overview of your research and to encourage viewers to stop to talk with you. Plan on limited text and strong images in the poster. Provide deeper information in a well-written handout.

If a viewer only remembers one thing from your display, what should it be?

- **Develop an information hierarchy.**

What is your key point? What do you need to support it? Would bulleted points be more effective than running text? Starting with an outline, which is an information hierarchy, will help you simplify and plan.

- **Think visually.**

Take out a pencil and sketch a small poster to scale. What size and proportions will you be working with? What will you include? What resources do you have and what do you need to add or eliminate to create a good poster?

Developing a Layout

How to get started: Mark off an area on the floor or on a table top the exact size of your poster. Print your text at 24 points in a long column set between 45 and 55 characters wide. Lay your text in place and cut it apart as needed to accommodate mock-ups of your image files. Add a title sketched to size. How does it look? What do you need to change to make your message clear? Ask a friend to look at it and see if they “get it.”

- **The most important things go first.**

The title is top center, the key position. Next, viewers look at the upper left; there you can put an introduction

that briefly states the question you're asking and why it's important. Follow with what you did and how you did it. Include simple supporting information. Your conclusions come last. Capture the viewer's attention, then guide them visually through your information.

- **Use a grid to keep items aligned and straight.**

If you do the layout on a computer, aligning things is easier. If you need to put things together manually, make sure items align, edges are straight and margins are even.

- **Use a text hierarchy.**

A text hierarchy means that you've established a convention with font sizes and styles that lets viewers easily recognize the order of importance of information in the poster.

The most important bit of text is the title; it's the largest text on the poster and usually in a bold font. You might use text 1½ inches tall for the title, make it bold and perhaps use all capital letters.

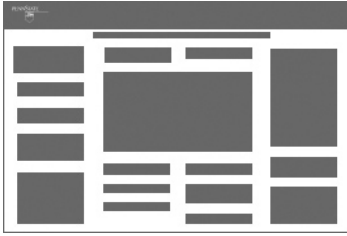
Next is the names of the participants and their department affiliations. If the title is 1½ inches high you can use ¾ inch to 1 inch tall letters for your names and a bit smaller text for departments. Use a combination of upper and lower case letters. The names could be made more prominent by making them bold.

Next might be subheadings stating what you did, why you did it and what you discovered. These could be ½ inch or larger, each followed by indented bulleted points or running text.

- **Use a column format.**

Your title will usually go across the top of the entire poster. The content should be arranged under it in columns: 3, 4, or 5 depending on the width of your poster. People expect to read from the upper left corner down each column till they reach the lower right corner. Your layout should guide the viewer's eye; adhering to this standard takes advantage of the viewer's expectations.

- Try to keep 40% of the poster area empty of text and images.



The “white space” in this image is 40% of the image area.

White space, which is only white if your background is white, is the space around images and text. It fills borders, helps to keep things separate, can keep things together, and can be used to focus the viewers attention.

Students often make the mistake of trying to fill all of poster in their enthusiasm to include as much as possible. Even your favorite teacher may find a poster filled from edge to edge a bit intimidating. You want people to find the information easily and feel that they can absorb it quickly and comfortably while standing at a poster fair. Open space helps give them this impression and invites them to read.

- Limit your use of boxes and lines.

If you put text and images in boxes and separate the columns and sections with lines, your poster will look like it’s still on a grid. The lines stop the viewers eyes from scanning smoothly, and it becomes difficult to scan the entire poster. You can achieve an orderly poster with white space.

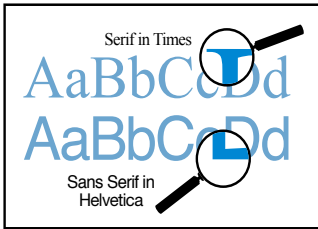
- If items go together, put them close to each other.

This seems easy enough. It means that you should keep a photograph or illustration near where it’s discussed in the text.

Selecting Fonts and Using Text

How to get started: A common font that’s included with every computer operating system is Times Roman. The problem with Times (and it’s sans serif partner, Helvetica) is that it’s so common designers think of it as boring. But it’s okay to use Times since you want the fonts that you use to stand out because of the information they convey rather than for their novelty. We used Palatino in this pamphlet; it’s very common in academic settings.

- Use common serif fonts for body text.



“Serifs” are the little cut-off strokes on letters. “Sans” means “without”, so sans serif means without little cut-off strokes.

A font should be readable. Make it easy for folks who don’t have much time to get the information they need. If viewers are familiar with a font, reading speed and comprehension are improved.

In print media, serif fonts are easiest to read and provide quick comprehension: the small finishing strokes guide the eye and the variation in stroke width aids character recognition. Convention, what people are most accustomed to, suggests choosing one of the common serif fonts for body copy. For example, there are a number of serif fonts that are considered “safe.” This pamphlet is set in Palatino; others include Garamond, Bembo, Janson, Baskerville, Goudy and Times.

- You can use sans serif fonts for titles, headlines, or labels.

Sans serif fonts work well for titles and labels because of the clarity and simplicity of the letter forms. Without the distinctive serif strokes, however, sans serif fonts can be difficult and tiring to read. Sans serif fonts for headlines and titles can mix well with serif fonts in the body; but you can also use a larger, bolder version of your serif font in the title.

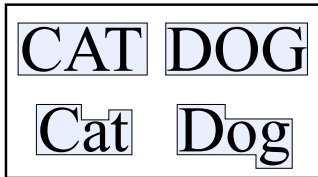
Not every sans serif font works well with every serif font; if your combination of two fonts doesn’t look right, try a different sans serif font. The sans font Helvetica is often paired with Times Roman. In this brochure, I’ve paired Frutiger with Palatino body copy. Penn State publications often pair the sans Univers with the serif Bembo.

- Try to use no more than three fonts in your document.

If you use more than three fonts your information hierarchy gets confusing, order is hard to maintain, and your poster starts to look disorganized.

If the body copy is Times and the title is Helvetica, that's two fonts. Adding Times Italic for photo captions makes three. If you then use Times Italic Bold for a sub head, you're adding a fourth font, and the orderly look of the poster gets harder to maintain. If you need the font for clarity that can't be achieved another way, use it; clarity of communication is the goal, not a specific number of fonts.

- **Combine uppercase and lowercase letters.**



Words that vary in shape are easier to read.

Quick and easy word recognition helps people effortlessly read a text. If you use all capital letters, the shape of every word is a rectangle; reading becomes more difficult. The ascending strokes above an h, b, or d and the descending strokes below a g, p, or j all help to create a distinctive shape for a word. This shape makes the word easier to recognize. The differences in shapes also help the reader maintain their place as they're reading.

Often a poster title will be set using all capital letters. It's harder to read than upper and lower case letters combined, but in short phrases, all capitals can add impact.

- **Use large fonts that can be easily read from 5 feet away.**

Take two steps back from a test print out. Can you read the text? Do the headlines command attention? Body copy should be *no smaller* than ¼ inch— that's at least 18 points. Some sources recommend using body copy that's 24 points. Obviously this limits the amount of text that you can include!

Your title should be about 1½ inches tall— that will usually be at least 120 points. The sans serif font that I'm using, Frutiger, has to be set at 150 points to print 1½ inches tall.

- **Black text on white has high impact and excellent readability.**

Text has to stand out clearly against the background to be seen and read. Black text on white has the high-

est visibility and readability. For your poster to be read quickly and easily, you need to maintain high contrast between the text and background.

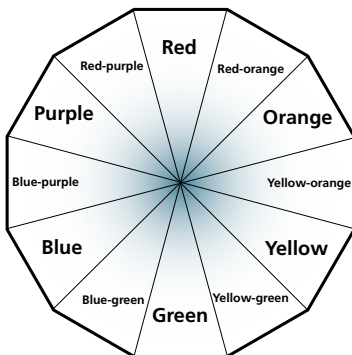
Using colored text for short passages can add impact as long as there's still contrast. Yellow text on white is difficult to read. Red on black, black on red, and blue on black are difficult to read, too.

Occasionally text is set to appear white on black. For bold titles it works, but for lots of text at small sizes, the black background appears to fill in thin lines and serifs making reading difficult.

Choosing and Using Color

How to get started: Are there any colors already in place that you could use? Colors that are natural to your project, such as green for botanical research or blue for ocean studies are great starting points. Colors could be implied by locale or culture or could be the color of a team tee shirt. Photographs that you want to include hold lots of colors that you can sample in a graphics application to use for image borders, bullets or "dingbats," or muted backgrounds. Colors found in these ways will help to pull your poster together.

- **Maintain a color scheme.**



Colors that are close together on a color wheel look good together.

Two or three related colors will give your poster a cohesive look. The colors need to go together well enough that they don't conflict with your message.

Colors that have something in common usually go well together. Blue and green go well together because they have blue in common. Bright red and blue have little in common and contrast sharply. If white is added to both red and blue so they have white in common, pink and powder blue become bearable. Adding black or another color can have the same effect.

If you use a standard twelve section color wheel, any three neighboring colors will work well together. For contrast in small quantities, the color directly across the color wheel can add impact.

A soft blue-green background can make your display look attractive, clean, and professional. Thin red-orange

borders on your images can make the images stand out. A single contrasting color can be used in small amounts for impact.

- **Keep backgrounds subtle; grays and muted colors help foreground information stand out**

Pale color as a background can be unifying to your poster. Neutral backgrounds enhance and promote material that's placed on top. Grays and pastels can be unifying while remaining in the background. Your poster can be mounted on a slightly larger piece of colored poster board so that the poster seems to be in a colored frame.

If your images are black and white or muted, a colorful background or borders may help the images stand out.

- **Use bright, saturated colors sparingly.**

Bright, saturated colors can be jarring or distracting to the viewer. The primary colors, red, yellow, and blue, tend to look garish. These effects can detract from your message or make viewing unpleasant enough that someone may choose not to bother.

Judicious use of bright color can attract attention to your display or to a particular area of your poster, for example a border around an image or filling an important word. Restraint is important, however; if you're not sure, leave it out.

- **Large amounts of red, yellow or orange can overpower your message.**

Most design sources agree that red, yellow, and orange can overpower your message. In many Western cultures, they evoke a sense of warning, urgency, and danger. Use them carefully.

These colors aren't necessarily wrong; they can add warmth to photographs and may be important to your subject matter. If it has a positive effect, use it. If your entire background is red, though, that might be all a viewer sees in the time they spend looking at your display.

Using Images

How to get started: Do you have photos that were taken during your work? Did you create graphs and charts that could be simplified and colorized? People are drawn to photos of people; could you stage some photos to point out key points of your message? Can you change tables into simple charts? Any images that you can provide will be a help. Outside sources are a possibility, but don't forget to get permission to use items that you didn't create.

- **Use meaningful, high-quality images.**



Web images usually don't print well.

Whether it's an illustration, a photograph, a chart or a graph, make sure that it supports the focus of your poster. It needs to convey information. When you use an image, you tell the viewer that you think the information in the image is important. If they can't easily see the importance, their attention will be lost.

Be ruthless editing images for quality; make sure the resolution is adequate for your purpose, the photograph is in sharp focus, and the color and tone are as good as they can be. The poor quality of one image will detract from your poster's overall quality. If there's any doubt, leave it out.

If a photograph that must be included is of poor quality, consider tracing it and turning the important part into a simple, powerful line graphic.

- **Adjust color and contrast in images.**

Software such as Photoshop can enable you to adjust color casts, brightness, contrast, and focus. It usually can't make a bad image good, but it can often make an average shot look a bit more professional.

- **Crop or edit images so the important information is obvious.**

Instead of showing a whole room, for example, enlarge a detail. A large photograph showing the inside of the lab you worked in for six months as well as most of your colleagues is a great memento. However, if you want to include it, think about what you want to convey with the

image. Perhaps you want to show the method you are using at a small table at one side. If so, crop out everything else and just show the section of you at the table. If you have high enough resolution, enlarge that part and make the message obvious.

- **Give photos short titles or captions.**

Even if you've managed to reduce your text to a minimum throughout your poster, some people still won't read it. Titles and captions on images help viewers to quickly understand what they're looking at.

- **Label directly on maps, charts, and graphs.**

Label data lines in graphs and sections on pie charts; avoid using legends (keys). Legends require the viewer to work hard at understanding the meaning of an image. If directly labeled, the viewer can understand a graph in one glance.

Also keep in mind that viewers can't turn your poster to read vertical text. Keep all labels horizontal.

- **Simplify charts and graphs.**

Remove non-essential information. If you don't mention the specific data on the poster, remove it from the image. Reduce the data in your images to what you need to make your point.

If you have very complex data, include a more complex image in your handout. Tables are often complex. If they can't be simplified or summarized, put these tables in the handout, too.

- **Use bold lines in graphs so the data can be seen and understood from 5 feet away.**

Lines on graphs should be made heavier than usual. They have to be seen and understood quickly. Sections in charts and graphs should be distinct as well; use different colors to clearly establish separations and relationships.

- Place images so that they're balanced visually in the poster and they help to lead the viewer's eye through the material.



Images of someone looking away from your poster lead the viewer away, too.

Don't place all of your images on one side of the poster. Images should be spread evenly over the surface, pulling the viewers eyes to all areas.

Lead the viewer through the material. Photographs of people looking to the right will lead the viewers eye to the right. If a photo of someone looking to the right is used along the right side of a poster, the viewer is directed away from the poster. If it still makes sense and has to be on the right side, flip the photo in a graphics application.

Web Resources

If you would like to spend time learning more, there are some Web sites that can help you:

- http://www.engr.psu.edu/ae/ecc/large_format_printing.asp
Website for the Engineering Copy Center, University Park
- <http://www.waspacegrant.org/posterdesign.html>
The Basics of Poster Design by the Washington Space Grant Consortium
- <http://www.aspb.org/education/poster.cfm>
How to Make a Great Poster by Dina F. Mandoli, Department of Botany, University of Washington
- <http://www.lcsc.edu/ss150/poster.htm>
Creating Posters for Humanities & Social Sciences by Marilyn A. Levine, Professor of History, Lewis-Clark State College
- http://www.kumc.edu/SAH/OTEd/jradel/Poster_Presentations/PstrStart.html
Developing a Poster Presentation by Jeff Radel, Ph.D., University of Kansas Medical Center
- <http://www.med.uwo.ca/physiology/courses/survivalweb03/frame.htm>
Survival Skills for Graduate Students/Posters by JTutis Vilis, Department of Physiology, University of Western Ontario
- <http://writing.colostate.edu/references/speaking/poster/>
Writing Guides/Overview of Poster Sessions by the Writing Center, Colorado State University

