

# Effective Poster Presentations

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## Content Considerations

1. What to consider when creating your poster: These questions the relevance of broad research areas and establish the scope of the poster presentation. They should function as a filter for maintaining the scope and relevance of poster content.
  - a. What is the big picture? How does your research relate to it?
  - b. What is the particular question you explored?
  - c. What strategy did you employ to explore your question? (methods, materials, methodology)
  - d. What were your results?
  - e. Why are these results significant in terms of the big picture? What is your interpretation of the data?
2. What are the characteristics of a good poster session?
  - a. **One part billboard, one part research paper.**
    - i. Good posters, like billboards, should capture the interest of the potential audience from a distance.
    - ii. Make sure your poster is memorable.
  - b. **A poster should be self-sustaining**
    - i. The poster should be able to stand alone. A good poster contains just enough information to be understandable. The presenter can always fill in the gaps if requested by a viewer.
  - c. **Posters speak, but you speak better**
    - i. Once you have an audience, you will begin an oral presentation.
    - ii. Use a one-on-one approach when possible to sustain interest.
    - iii. When presenting in an open space, consider multiple listeners.
    - iv. Summarize the conclusions clearly in one sentence. Make sure they know what to take away.
  - d. **Viewers are of all types**
    - i. Viewers will approach the content you present with their own cognitive styles. The designer of the poster can control how content flows (both in the poster and the presentation), but there is no way to determine how individual viewers will take in the subject.
  - e. **Know your audience**
    - i. Viewers will connect on different levels – those familiar with the topic will be looking for interpretation; those who are not will be following the logic.
3. Structuring your content and your poster
  - a. It is useful to have a structure for your content. A STEM research project that involves a hypothesis and experimentation to prove or disprove lends itself to a narrative arc structure. Explain what got you interested in the research, how you came up with your idea. What was the problem you wanted to solve and the challenges you encountered? What were the successes and the failures? And what was the end result? What will happen next?
  - b. Other ways to structure an argument or thesis examination include (this is not an exhaustive list):
    - i. In building **Evidence by Example** you give concrete illustrations that provide a convincing argument supporting a thesis.
    - ii. **Process Analysis** is a demonstration either of how something works, for example, cell mitosis, or of how to do something, like edit a Wikipedia article.
    - iii. **Cause and Effect** focuses on what creates a particular outcome.
    - iv. **Compare and Contrast** uses a comparison of like and unlike things to explore an idea and how it fits into a bigger construct.
    - v. **Classification** can help the audience sort through and understand detailed information or ideas by grouping them.

- vi. With a **Deductive** process you accumulate evidence to make a useful generalization.
  - vii. **Definition** is used when a subject requires the understanding of terms, ideas, or phenomena, while **Redefinition** gives new understanding or new meaning to a topic.
4. Sections to consider including in a poster.
- a. Depending on the event, sections may be predetermined, but here are examples of standard headers and the type of content for each:
    - Title:** Convey the issue, approach, and system; Make it catchy; 1-2 lines
    - Introduction or abstract:** Get viewers interested; Minimum background material; Present a clear hypothesis; Photos or illustrations OK; Maximum length ~ 200 words
    - Materials/methods/methodology:** Briefly describe equipment/methods; analytical approaches or research methodology used; images, graphs, charts, and tables can be used; Maximum length ~ 200 words
    - Results/main Ideas:** Describe qualitative and descriptive results; Present data analysis; Provide and refer to images, tables, and graphs; Maximum length ~ 200 words
    - Conclusion/Summary:** Remind reader of purpose of work and results; Discuss why your results are conclusive and interesting; Discuss relevance to other published works; Mention future directions.
    - Citations:** Follow standard format for your discipline; Cite articles you have read in full; Find journal articles and books as opposed to web sites.
    - Acknowledgements:** Thank individuals and granting/funding agencies.
  - b. Or, descriptive headers can bring specificity to sections. Use familiar keywords.
5. Other text considerations
- a. **Less is more:** Keep narrative text to a minimum. You can fill in the gaps with your presentation.
  - b. **Short and sweet:** A poster is more welcoming if it isn't text heavy.
    - i. **Total 800 words:** Aim for this number to keep the text minimal.
    - ii. **11 words per line:** Is optimum for readability.
    - iii. **10 lines per paragraph:** Make your point efficiently and succinctly.
  - c. **Hourglass structure of content:** intro = broad principles; analysis = detail; conclusion = broad.
  - d. **Take home message headers:** Consider giving each section a header that serves as the "take home message" or introduces the subject.
  - e. **Figure or image legends and/or footnotes:** Best place to discuss details of findings represented by the accompanying images.

## Design Principles

6. Why? Two main reasons:
- a. **Craftsmanship = quality:** Constructing a well planned and executed poster will show your professionalism. Good craftsmanship indicates that you care about presenting your subject in the best light and that you should be taken seriously.
  - b. **Branding = memorable:** A consistent look throughout creates branding. Branding makes a presentation look professional and helps viewers remember the content.
7. Layouts
- a. **Grid options:**
    - i. A number of columns and a number of rows (traditional)
    - ii. Organic grids (like a circle or web)
    - iii. Blend of the two
  - b. **Flow from column to column:** Content arranged in columns makes it easier for viewers to follow and digest the ideas, moving from one column to the next. If content is arranged horizontally, your audience will have to walk back and forth in front of the poster as they zigzag through the text.

- c. **Eye level is prime real-estate for content:** Place the most meaningful or substantial content at eye level to emphasize your most significant principles. Less immediately noteworthy content (e.g., resources, citations) can be placed at the bottom.
  - d. **Clear cues to guide readers** - Think about the flow of information from one content item to another. You can use placement within the poster, graphical elements like a bounding box or arrows, and even numbers or letters to logically connect content items together.
  - e. **White/blank space gives clarity:** Allow enough space to break up the sections. The empty space between sections should be of the same visual unit size as all other spacing units, or a size that is related to the other spacing units (e.g. 0.5x the unit size, 3x the unit size, etc.). White space can help clarify relationships by providing a consistent flow of visually aligned content for the viewer to experience.
8. Graphics
- a. **A picture is worth 1000 words:** Use images to illustrate findings and make your poster more visually appealing to viewers.
  - b. **Readable:** Images should be comprehensible from 6 feet away.
  - c. **Consistent image treatment:** This is a branding consideration. Your borders, contrast, shadowing, etc., should be the same throughout.
  - d. **Image borders:** Use borders to make images stand out from the background.
  - e. **Image sequences:** should be accompanied by letters or number progression; images should be clumped together in a bounding box.
  - f. **Image orientation:** For close up images, accompany them with a reference to where the close up is located on the image.
  - g. **Use Captions:** Images could be accompanied by captions and figure numbers
9. Infographics/Display of data
- a. **Simplify your message:** too much data can obscure the message.
  - b. **Don't use 3d graphs for 2d data:** Visually complex graphs can obscure data.
  - c. **Horizontal Y-axis labels:** If you have the space use horizontal type. If not then rotate the text instead of opting to stack the text. Legibility is key.
  - d. **Types of Infographics:**
    - i. Distribution - e.g., bar chart, histogram, box & whisker
    - ii. Parts to a whole - e.g., pie chart, donut chart, tree map
    - iii. Time Comparison - e.g., line chart, timeline
    - iv. Spatial - e.g., map, choropleth, contour line
    - v. System - e.g., flowchart, schematic.
    - vi. Relationship - e.g., scatter plot, Venn diagram
10. Type Treatment/Font
- a. **Size of text:** title should be no smaller than an inch (72 pt. font size = 1 inch)
  - b. **Be consistent with font:** Avoid too many fonts and competing styles: Use fonts from the same family (variations of a font) to keep the look consistent for branding purposes.
  - c. **Easy to Read:** San-serif fonts are easier to read at a distance, but serif fonts are easier to read up close.
  - d. **No caps or all bold:** Don't use all caps for a title or in text bodies. Bold should be used sparingly when attempting to direct attention.
  - e. **Titles in "sentence caps" easy to read:** Capitalize only the first word and proper nouns.
11. Color
- a. **Color attracts and speaks:** Color is good for attracting and expressing tone. Color can be a visual element that guides viewer through content. It can be used to emphasize select content. Color choices will be an element in your branding strategy.
  - b. **Colored backgrounds:** can be overwhelming if too bright/dark.
  - c. **Color schemes:** Muted (light and/or less bright) colors are equated with professionalism. A muted scheme often works well with a single bright color for emphasis.

- d. **Be considerate of those with color vision deficiencies:** Make sure everyone can read your poster. If you have a color vision deficiency, have someone check your poster. In general, avoid heavy use of reds and greens. Use symbols and line patterns (e.g., dashed or dotted) instead of colors for graph elements.

## Logistics

### 12. Methods for poster creation

- a. **Single sheet:** Single sheet printing produces one large print. Your poster can be created in a layout program and easily printed out, but it can be costly. So, once it's printed you may have to live with any mistakes. Be sure to proofread very carefully before you print.
- b. **Modular:** This methods produces sectional sheets that put together constitute a complete poster. It is easy to transport and edit in a hurry. However, it takes time to set up, and involves paying careful attention to craftsmanship.

### 13. Programs to use

- a. **For images:** Photoshop; Gimp
- b. **For graphs:** Matlab; Illustrator; Omnigraffle; Inkscape; KaleidaGraph; PowerPoint; Word, Excel; KeyNote
- c. **For layout and print:** InDesign; PageMaker; Quark; Illustrator; MS Publisher; Photoshop; PowerPoint; Word

### 14. Program/Production tips

- a. **Work within the print color mode:** Make your document CMYK color mode, not RGB for more accurate print color representation (relevant for programs such as Illustrator and Photoshop).
- b. **Resolution:** Resolution (pixels/inch) of images to be printed in a poster should be 300 pixels per inch to avoid pixilation or blurriness. Never use web images for posters unless they're large on the screen. Web images are always 72 pixels per inch. You cannot increase the size/resolution of an image without it getting blurry. Do a test print at the size it will appear on your poster to ensure the image is clear.
- c. **Print a font size test sheet:** Print out a sheet of paper of your font at different sizes and place it on a wall to see what the title, subtitles, and text look like at a distance.

### 15. Production Timeline **[Note: The URD deadlines and requirements will differ. Check with your department or program!]**

- a. Rough draft or storyboard **1 month** before deadline (the hardest part)
- b. Final draft of poster **~ 2 weeks before**
- c. Print and mount at least **a week before** (but should **be as early as possible**)

### 16. Transport and assembly of posters (review the your venue's guidelines if any)

- a. **What to have while there:** Bring pushpins or Velcro strips or glue sticks to fix or assemble your poster.
- b. **What to use before the session:** rubber cement, spray adhesive, or double stick tape to assemble the poster.
- c. **What to use for transporting:** Tube rolls for large prints or a stiff rigid case of some sort for modular posters.
- d. **What to mount on:** Matte board and foam-core board if using the modular poster approach.
- e. **What to cut with:** Xacto knife, paper cutters, and metal ruler (straight edge).

### 17. Presentations tips

- a. Speak to your audience, not your poster.
- b. Don't read from your poster.
- c. Don't put your hands in your pockets. No chewing gum. Do not even think about checking your cellphone!
- d. Pay attention to your attire. Dress professionally to make a good impression. Consider choosing clothing that coordinates (or at least doesn't clash) with your poster.
- e. Give a one to two sentence overview of the poster (elevator speech).

- f. If people approach your poster after you have begun talking to viewers, pause to welcome them and identify where you are in your presentation, but don't start over from the beginning.
  - g. Thank your viewers for visiting.
18. Handouts
- a. **Give them something:** A handout will give interested viewers more information on your research or project. Hand out copies of your poster, papers, accepted manuscripts, and/or business cards.
19. Extra points
- a. **Design concepts as they relate to other media:** Consider the above design principles for other media when creating content; web; PowerPoint; video; etc.
  - b. **Where to print:**
    - i. Check with your department for a large-scale ink-jet printer. Some departments have them and use of it could be free.
    - ii. The Digital Media Center has a large-scale printer (relatively cheap) and the applications necessary to create your poster.
    - iii. FedEx Kinko's Office and Print Services, 3003 N Charles St., Baltimore, MD 21218, (410) 467-2454
    - iv. JHMI Pathology Photography Dept., 410-955-3843, Pathology Building room 111, <http://photography.jhu.edu/graphics/posters.html>, \$12/sq.ft. (they will provide proofs as pdf before printing if asked)

## Sites and resources

20. Sites to check out:
- a. Comprehensive resource
    - i. <http://colinpurrington.com/tips/academic/posterdesign>
  - b. Posters for the Humanities:
    - i. <http://aphdigital.org/2014/05/13/poster-tips-for-humanities-conference-posters/>
  - c. Flickr group "poster sessions"
    - i. <http://www.flickr.com/groups/368476@N21/pool/>
  - d. Color vision deficiency resources
    - i. <http://www.toledo-bend.com/colorblind/lshihara.asp>
  - e. Tool for creating color themes (good for inspiration)
    - i. <http://www.colr.org/>
    - ii. <http://kuler.adobe.com>