Tips for Better Visual Elements in Posters and Podium Presentations

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Abstract

Context—The ability to effectively communicate through posters and podium presentations using appropriate visual content and style is essential for health care educators.

Objectives—To offer suggestions for more effective visual elements of posters and podium presentations.

Methods—We present the experiences of our multidisciplinary publishing group, whose combined experiences and collaboration have provided us with an understanding of what works and how to achieve success when working on presentations and posters.

Findings/Suggestions—Certain visual elements should be attended to in any visual presentation: consistency, alignment, contrast and repetition. Presentations should be consistent in font size and type, line spacing, alignment of graphics and text, and size of graphics. All elements should be aligned with at least one other element. Contrasting light background with dark text (and vice versa) helps an audience read the text more easily. Standardized formatting lets viewers know when they are looking at similar things (tables, headings, etc.). Using a minimal number of colors (four at most) helps the audience more easily read text. For podium presentations, have one slide for each minute allotted for speaking. The speaker is also a visual element; one should not allow the audience’s view of either the presentation or presenter to be blocked. Making eye contact with the audience also keeps them visually engaged.

Conclusions—Health care educators often share information through posters and podium presentations. These tips should help the visual elements of presentations be more effective.

Keywords
Podium presentations; posters; practical advice

Introduction

Health educators have numerous opportunities to present on clinical topics, research study findings and educational strategies. These include regional and national educational conferences, research findings offered to staff nurses at a local medical center, and health topics presented to a community audience. The ability to effectively communicate a topic to an audience in terms of an appropriate visual style is essential. Below, we offer some basic precepts to help make presentations visually coherent and effective. These precepts are consistent with the generally accepted principles of visually effective professional presentations.
There are two principal ways to present material: posters and podium presentations. A poster may need to be stand-alone (self-explanatory), or there may be an opportunity to have a narrated poster (author leads five minutes of dialog). A podium presentation goes beyond the static nature of a poster and can take many forms, such as a lecture or informal in-service. We herein focus on the most common type used by health professionals: the narrated PowerPoint slide show.

**Poster Layout**

Many institutions have a template—set colors, logos, and/or format—that their faculty must use for all presentations. Many institutions have also developed standard structures for posters. We recommend using Windows PowerPoint (formatted as one slide) to develop the poster. If no format is available, a website with basic templates available for downloading can be found at http://www.posterpresentations.com/html/free_poster_templates.html. Otherwise, the advice in this article can be used to develop a template.

Certain visual elements need attention in any poster: consistency, alignment, contrast and repetition. Being consistent in font size and type, line spacing, alignment of graphics and text, and size of graphics not only helps present a unified style as a presenter or institution, but also allows the audience to pay attention to the information presented rather than to the style of its presentation. Aligning every element with at least one other element helps to track audience members’ gaze in an orderly fashion through the visual elements. Contrasting light background with dark text (and vice versa) makes the text easier to see. Standardized formatting also clues the audience so they know when they are looking at similar things (tables, headings, etc.). For visual balance and to provide rest for viewers’ eyes, sufficient blank space should be included. The most common error in formatting posters is to include too much information.

We have provided an example that demonstrates many of these design suggestions.

Each header in this poster is red Arial 44-point font. Table headings all use the same color. Bullet points are consistent in style within a given set, though different from each other set. All boxes in the example are the same width or length as others in the same column or row. (The PowerPoint tool found under Insert-Picture-Autoshapes can be used to insert standardized shapes of tables, text boxes, symbols, etc.). The size and layout of diagrams and tables have been standardized, though imported into the final presentation from several differing softwares (e.g., PowerPoint, Excel, and Word).

In this poster, the Purpose section aligns horizontally and vertically with Methods and Results, as well as Background and Sample. PowerPoint has a “Grid and Guides” tool under the “View” menu that will superimpose lines that can be used to assure that objects are aligned. The table cells contain some blank space; they are not overloaded with text. In the title, the contrast of the dark blue background with the white text makes the text very readable. Elsewhere, the black and red lettering on the white background is also easy to read. The tables all have pale red backgrounds, so viewers can quickly identify them as similar things (all tables, in this case). Putting uniform spacing before and/or after particular levels of headings allows viewers to recognize that an important element is coming up.

**Other Poster Layout Tips**

Simplicity in presentations prevents viewers from getting distracted and reminds the presenter what is essential about the subject. Using a minimal number of colors, typically four maximum and generally black, white, red, blue and/or green (yellow does not show up well), helps the audience easily read text. An alternative to using different colors is to use variations of shades and tones for one or two of those colors, which avoids having too many
colors in the presentation. Underlining text is visually too mild to command attention; bolding, tinting, or enlarging text works better. The number of images used should be kept to the minimum needed to break up big blocks of text; otherwise, the presentation will look cluttered. Using large fonts or bold as the primary font format is off-putting, the visual equivalent of screaming at an audience. The limit for any one horizontal line should be about 10 words; otherwise, the text will draw the audience's gaze too far horizontally.

Many presenters now incorporate their own images from various sources into their presentations. However, in so doing, care should be taken to keep images as clear as possible. Many images taken from the web are low-resolution, and enlarging any image will make it lose sharpness. Enlargement should always be proportional so that the image does not become distorted, which commonly occurs when only one edge or corner of an image is dragged to enlarge it.

**Working with Poster Printers**

The printer we use was found through an internet search, and we chose it because it was affordable and could ship to us overnight. We recommend using a printer that provides convenience and cost savings. A quick internet or telephone directory search can identify an appropriate printer in many locations and circumstances. The website www.hubcast.com operates as a clearing house where you can find appropriate printers around the world.

These sites and companies operate similarly. Using our experience as an example, we use the company’s website to upload our presentation files. Once these are uploaded, the site presents options for sizes that will work best for the file as formatted or will meet a conference’s specifications. The cost of the poster is based on its size and requested speed of delivery. Ideally, we allow one week between ordering a poster online and receiving it by mail. For a higher price, many printers can ship the next day. We feel that the "glossy" surface option for posters makes them easier to view. Cost with the printer we use is $50-$80 (roughly £40-£65) depending on the size and delivery options.

Printing additional single-page copies of the poster (8.5 × 11, A4, or legal size) and offering them beside your poster at the conference will allow attendees to take home a copy of the poster. A poster made for one purpose can be offered to other meetings/places. For example, some hospitals and health sciences colleges provide a location where staff can display their posters prepared for meetings elsewhere.

**Podium Presentations**

Presentations can take many forms, but we focus here on the most common type used by health care educators, the narrated PowerPoint slide show. The typical 10- to 15-minute time limit for presentations at conferences can challenge even experienced presenters. A general rule of thumb is to have one slide for every minute allotted for speaking. For example, a 15-minute presentation should generally have at most 15 slides. Any more slides than this may leave the audience with too little time to digest the material contained on each slide. For the average research presentation, the guidelines of Table 1 can be used as general rules.

Some institutions have a template that faculty are to use for formatting slides, just as for posters. This provides a uniform appearance to all presentations from the institution. For institutions where no template is available, a background color should be chosen that provides high contrast with the text color. For example, the traditional white background when used with black, blue or red text colors provides high text/background contrast, as does the longtime favorite white text on a dark blue background. Another option is to use an extremely light-colored tint background with black text. There are countless varieties of
color combinations and templates available, but high contrast and readability should guide one’s choices.

A common error is to have too many words on a given slide. Short phrases free of all unnecessary words help an audience quickly grasp important information. For "In order to clarify…” just say "To clarify…” Avoiding the passive tense will save words (for "A is dependent on B,” use “A depends on B”). Define long phrases by shorter ones or even single words: if study participants are defined once as "women over 40 who had never had a child," they can afterwards be called "subjects”.

Symbols (like arrows and bullets) can be problematic because on different computers symbols can change. The same thing can happen with colors. A slide that looked nice on one computer and projector can have a completely different and unattractive look on another computer and projector. If possible, it is wise to preview one’s presentation on the computer and projector that will be used for the actual presentation. Using animation and transitions, such as text or images flying or sliding in, can be very distracting for the audience and is also prone to technical malfunctions. As an alternative, to emphasize different parts of a slide, we suggest creating a duplicate slide with just the emphasized changes added, then as the two slides advance they appear to be one slide with animation, with less chance for malfunction.

The presenter him/herself is part of the visual experience of a presentation. The presenter should stand in a place that allows the audience to see the presentation. Objects between the audience and the speaker or presentation that impede line of sight should be removed, for example, a water bottle or laptop. Movement or rocking in the speaker or any object on the podium should be avoided, as the motion will visually distract from the presentation. As they speak, many presenters will inappropriately address the screen or computer rather the audience. Making eye contact with audience members encourages them to keep looking toward the presentation. The presenter should wear clothing that will complement and not distract from the visual presentation (we know one presenter who chose her outfit to match her presentation’s colors). Before the actual presentation, it is a good idea to give a mock presentation to colleagues and invite questions and comments on the visual presentation.

**Conclusion**

Sharing information with others is an important part of health care educators’ duties. Often, that information is best shared visually, or at least it is often first shared visually, as a poster or narrated PowerPoint slide show, before subsequent publication. From presenting research findings at a large scientific meeting to educating a handful of patients in a community setting, the advice in this article will help make that visual presentation more understandable, enjoyable and effective.

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**References**

2. Eckhardt, AL.; Fink, AM.; Fennessy, MM.; Jones, J.; VanderZwan, KJ.; Kruse, D.; Ryan, CJ.; Zerwic, JJ. Fatigue as a symptom of acute myocardial infarction (AMI). Paper presented at the American Association of Critical Care Nurses; Chicago, IL, USA: National Teaching Institute; 2008.
Figure 1.
Example of an attractive visual layout for posters.
### Table 1

Slide guidelines for research presentations

<table>
<thead>
<tr>
<th>Section of Presentation</th>
<th>Number of Slides</th>
</tr>
</thead>
<tbody>
<tr>
<td>Title</td>
<td>One slide</td>
</tr>
<tr>
<td>Acknowledgements</td>
<td>One slide (may be at beginning or end)</td>
</tr>
<tr>
<td>Background</td>
<td>One slide (a common error is to have several Background slides, limiting time available for Results, which is what the audience is most interested in)</td>
</tr>
<tr>
<td>Research questions/purpose</td>
<td>One slide</td>
</tr>
<tr>
<td>Methods</td>
<td>One to three slides (Slide 1: Study Design, Slide 2: Measures; Slide 3: Sample)</td>
</tr>
<tr>
<td>Results</td>
<td>Four to six slides (Slides 1–2: Key Variables with Means, SD, etc.). Slides 3–4: Descriptive Results (Simple Analyses). Slides 5–6: Hypothesis-Testing (Complex Analyses)</td>
</tr>
<tr>
<td>Conclusions</td>
<td>One to two slides (may include limitations of the study)</td>
</tr>
<tr>
<td>Future directions</td>
<td>One slide</td>
</tr>
</tbody>
</table>