Aesthetics and Substance in Qualitative Research Posters

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Poster presentations of qualitative research are increasing in number. Currently, no guidelines exist for preparing qualitative research posters to assist researchers in designing posters that will be maximally effective. In this article, we present guidelines for qualitative posters, developed from our evaluation of qualitative posters at research conferences and a review of the literature. Areas discussed include content, text, materials, component arrangement, and visuals. Although qualitative research celebrates creativity, consideration of these areas will help researchers ensure that their messages are clearly received by the largest possible audience.

Qualitative research continues to grow in popularity and acceptance. At many conferences, attendees can expect to find results of qualitative studies presented in poster format. The increased presence of qualitative research posters has occurred without concomitant development of formal standards, or even informal guidelines for their development. Although literature on poster construction from education, health, and the social sciences has addressed the presentation

Authors' Note: A table for preparing posters is available on the World Wide Web at http://www.utmem.edu/personal/crussell/poster_table.

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of quantitative information via posters (Doughner, 1969; Matthews, 1990; Ward, 1982; Wittich & Schuller, 1973), little effort has been invested in developing guidelines for qualitative research posters. Posters displaying the results of qualitative studies are, therefore, highly variable in terms of their readability, understandability, and overall construction. Qualitative research is artistic and celebrates individual creativity, so qualitative research posters will likely remain idiosyncratic in construction. Nonetheless, defined conventions may be useful to researchers choosing to convey their findings in the poster medium, helping to ensure that their messages are clearly received by the largest possible audience.

In this article, we present guidelines for the design of qualitative research posters, developed from our observations of qualitative research posters combined with literature about general poster construction. We describe aspects of presenting qualitative information via posters that differ from those in presenting quantitative information, and we offer guidelines about specific areas that affect a qualitative research poster's overall presentation and readability.

METHOD

We evaluated 75 qualitative posters at three research conferences using a guideline we developed from a review of the literature and our experiences with qualitative poster presentations (see the table on the World Wide Web). Categories of the guideline included the following: (a) content (i.e., title, text, and author information), (b) text formatting (i.e., print size and type), (c) materials (i.e., color, matting, construction, and supplementary materials), (d) component arrangement (i.e., sequencing and logic), and (e) visuals (i.e., type, number, placement, and strategic use of visuals).

At the first conference, an international qualitative health research conference, two of the authors surveyed all posters (n = 45) together, spending approximately 5 minutes at each poster. We evaluated every poster on each category in the guideline on a three-point scale: *particularly good*, *adequate*, or *problematic*. Additionally, we wrote specific comments about individual posters that highlighted particularly good or problematic presentations. We reviewed the posters at times when most presenters were away. We believed that a poster should speak for itself, without any additional explanation by the presenter. Each poster, therefore, told its own story. As a final step, all qualitative

research posters (n = 30) at two regional nursing research conferences were systematically reviewed by the third author using the same guide. This final phase ensured that we had reviewed a variety of posters presenting qualitative research.

GUIDELINES FOR QUALITATIVE RESEARCH POSTERS

The categories of poster content, text formatting, materials, component arrangement, and visuals structure the presentation of guidelines for qualitative research posters. For each category, we combine information from the literature about poster development with our observations of qualitative posters to support our recommendations.

Poster Content

General guidelines for the content that should be included on posters include the title, researchers' names, purpose, objectives, sample, methods, procedures, findings, summary, and implications (McDaniel, Bach, & Poole, 1993; Morra, 1984; Sherbinski & Stroup, 1992; Thompkins, 1989). Almost one quarter of the posters we reviewed had too little information; where a complete content area was missing from the poster. The summary and implications were the sections most often omitted, yet these may be the first areas viewers read to determine whether the findings have any relevance for another setting or whether they wish to read the entire poster. The absence of any section limited our understanding of the study, and, perhaps more importantly, we lacked sufficient data to make informed judgments about the soundness of the study.

There should be only 2 to 5 minutes of reading material on a poster, lest viewers be overwhelmed by detail (Biancuzzo, 1994; McCann, Sraman, & Rudy, 1994; Ryan, 1989). This guideline limits the breadth and depth of material authors can present. The chief reason many authors place too much information on their posters is that they have neglected to narrow their focus and decide on a specific purpose for their poster (Lippman & Ponton, 1989; McDaniel, Bach, & Poole, 1993). Because posters must display information simply, clearly, and concisely, authors are advised to invest a sufficient amount of time in deciding on the focus for their poster. Writing a draft of material to

include on the poster, then rereading and highlighting key words and soliciting feedback and critique from peers are useful strategies that can help authors eliminate unnecessary text and condense information so the poster will be most effective (Matthews, 1990; Morra, 1984). Continual attention to the basic questions of why, who, what, when, where, how, and so what (Ryan, 1989) can help authors remain focused so the poster's content can be comprehended in the few minutes viewers will spend reading it.

Much of the material in quantitative research posters can be presented in numerical tables or figures, but the narrative content of qualitative research posters does not lend itself to that same concise presentation. Thick descriptions or informant quotes, and the multiple themes, categories, or descriptions that are associated with much qualitative research cannot be presented "in toto" in a poster. Authors of qualitative research posters are challenged to keep the amount of words and phrases to a minimum, while keeping the posters' overall message understandable. Strategies to help authors limit their narrative presentations include "chunking" and listing (Matthews, 1990). Chunking involves organizing poster text into "digestible bites" (Matthews, 1990, p. 226). Listing (i.e., using short sentences or phrases set off with bullets instead of complete sentences in paragraph form) helps readers comprehend a poster's message quickly and effectively (Matthews, 1990). Over 50% of the posters we reviewed had too much information and overloaded viewers by giving too much detail. For example, one poster had 19 panels and another had 22 panels of text. Confronted with an overwhelming amount of information, we (as viewers) felt compelled to leave and find a poster that we could read in the 2 to 5 minutes that most attendees take to read a poster.

An essential part of the poster display is complete and accurate information about the authors. Author data, that is, the name(s), credentials, and institutional affiliation of the author(s), were not on the poster, was difficult to find, or was missing a necessary aspect in more than 25% of the posters we reviewed. The poster speaks simultaneously for the author and the author's institution (McDaniel et al., 1993), so easily identifiable and readable author information is necessary.

Poster Text Formatting

Print size (i.e., font) and print type (i.e., typeface and typestyle) are the two subcategories of text formatting. Because so much of qualita-

tive research posters is text, the size of the print may be one of the poster's most critical features. The size of poster print should allow viewers to easily read the text from 4 to 6 feet away (Biancuzzo, 1994; Kirkpatrick & Martin, 1991). Viewers may then peruse the poster without coming into the space of the presenter, thereby giving viewers the opportunity to read the material without the presenter's interpretation. Even at this distance, viewers can engage the presenter, should they choose to do so. We found that more than one third of the posters had print size that was so tiny that viewers had to be as close to the poster as this page is to you for reading comfort. Print sizes of 10 or 12 points required viewers to step nearer to the poster. Space around posters became crowded, and, more important, there was little opportunity to stand back and view the poster as a whole, scanning for the gestalt rather than the detail. We observed that many viewers took a brief look at posters with small print and moved on quickly to spend most of their time at other posters whose messages were communicated in a more favorable manner.

To make text readable from a distance of 4 to 6 feet, the most effective print size is at least 24 to 30 points, or ½ to one inch high (Biancuzzo, 1994; Matera & Gucciardo, 1992; Ryan, 1989). The most readable titles are prepared in 36-point type, so they are at least 2 to 3 inches high (Gregg & Pierce, 1994; Matthews, 1990). Within the text, consistency is of benefit to viewers. The consistent use of a slightly larger print size throughout for section headings and a slightly smaller print size for text makes the poster material easier to read.

Print type is typically clearer if a roman type style with a serif type face is used (Biancuzzo, 1994; Kirkpatrick & Martin, 1991; McDaniel et al., 1993). Serif type faces have tails (or feet), whereas sans serif type faces do not. For example, it is much easier to distinguish an "l" from an "i" with the serif type faces. Simplicity is also associated with roman type styles, whereas block or gothic style letters are more complex and have curls and lines on the letters that limit readability. Similarly, standard print is better for most of the text—reserving italicized, underlined, capitalized, or bold letters for emphasis. Unique print draws viewers' attention to an area and is useful for emphasizing key words or ideas; however, an overuse of unique print has the opposite effect. We found that complicated type styles increased the amount of cognitive effort expended on reading versus understanding a poster's message.

Poster Materials

Black print on white paper increases the ease of reading large blocks of text, whereas the *selective* use of color may stimulate viewers to read the poster or attract their eyes to major ideas (Kirkpatrick & Martin, 1991; McDaniel et al., 1993). An all-white poster board that has limited contrast may not attract viewers and may be difficult to read (Sexton, 1984). We noted that posters designed in basic colors, such as blues and reds, that were arranged in one or more color combinations with judicious use of white space were more likely to attract us as viewers. The use of multiple colors and certain color combinations may be overwhelming to viewers, negatively affecting emotions and decreasing the opportunity for presenters to convey their information to a wider audience (Kirkpatrick & Martin, 1991; McDaniel et al., 1993). Bushy (1991) offers an excellent discussion and examples of the three aspects of color—hue, saturation, and value—that should be considered when planning poster displays. It is more difficult to read posters with fluorescent colors or those with several colors, because viewers must simultaneously try to read and understand the text while their visual sense is bombarded with harsh colors or color combinations. Unfortunately, visual overstimulation may cause the message to be lost. Because more energy is required to get the poster's message, some viewers will not stop or will not complete their viewing.

Material matted in color-coordinated sections facilitates viewers' following the flow and is particularly useful for posters with a variety of nontextual information. We observed matting done with patterned borders enhanced the presentation of material in some posters. For example, one poster's text was typed on stationery paper that had a colored and patterned border that was attractive and drew viewers' eyes to the poster, yet the border did not compete with the poster's textual information. The brightness and contrast of the matting board detracted from the presentation of the material on several posters. Particularly problematic were too much color contrast and the use of three or more competing colors. The harshness and brightness of color combinations such as fluorescent or bright greens, blues, yellows, or reds, distracted viewers from the message of the poster to how the poster was presented.

A great idea may be totally ignored if it is presented in a sloppy manner. Approximately 5% of the posters we reviewed looked particularly shabby, as if they had been hastily thrown together without

attention to detail or without many resources. Problems we noted included handwritten notes on some posters, clumps of glue showing through paper, and typographical errors. A similar percentage of posters had problems with glare on the text related to lamination or having text printed on acetate (i.e., overheads). Glare made reading the text difficult in all cases and virtually impossible for some posters. Another 5% of the posters had busy backgrounds, where materials in the background were distracting to viewers. In one example, a fluorescent paisley background kept us as viewers from focusing on the textual information.

Supplementary materials, such as handouts with the presenters' names and addresses and a synopsis of the poster's content are useful to have; these can augment presenters' messages and supplement key points (Kirkpatrick & Martin, 1991; Lippman & Ponton, 1989; Matera & Gucciardo, 1992). If viewers are unable to speak with the presenter, they can take these handouts and write the presenter for additional information. Handouts are also useful at those conferences where research posters are displayed for a long time and presenters are not in attendance for all of the posters' display time. The most common supplementary material we noted was a sheet of paper on which viewers could write their messages, requests, and comments. Other posters had general handouts, a list of references that viewers could take, and presenters' business cards. Supplementary materials are, however, only a supplement. The key to a good poster is still the clear, concise, and understandable presentation of the poster's content.

Another useful suggestion for qualitative researchers who may feel as if they have had to leave off so much of the meaningful and rich narrative text or art work is to have a notebook with additional data examples available for viewers to examine. This strategy may be one way that presenters can limit the amount of content that goes onto the poster—knowing that additional details and examples will be brought to the conference.

Poster Component Arrangement

The "trick" of preparing a poster is to catch the eyes of viewers so they'll be attracted to the poster and stop to interact (Biancuzzo, 1994; Bushy, 1991; Lippman & Ponton, 1989; McDaniel et al., 1993). All posters at a conference simultaneously compete for attention; therefore, something about a specific poster must make it appeal to viewers

so that they will stop and look more closely. Several strategies are helpful here.

Viewers are more likely to stop and attend to the poster if they do not have to work too hard to get the message. Arranging components in a simple, appealing, and logical style is one way to help viewers. Posters we reviewed that had particularly good sequencing used such conventions as numbered panels that guided viewers to the next panel, unique color matting for different sections, or arrows to direct viewers' attention in the desired order. Viewers expect certain conventions in the presentation of material, and disharmony may be created when the sequencing is unconventional. For example, viewers typically expect to find material presented from top to bottom and left to right (Matthews, 1990). When this standard ordering is missing, viewers may return to previously viewed components to see if they missed something, when in actuality the component they are looking for may be the final component displayed. More than one third of the posters we reviewed had problems with sequencing. Some posters had findings at the beginning of the poster where one would typically expect to find information related to purpose, sample, and method. Other posters had materials placed in no readily discernible order. Unconventional presentation of material created extra work for us as viewers: We simultaneously had to determine the logic and flow of the poster while trying to comprehend the message.

Creativity in style is a hallmark of qualitative research. It is natural, therefore, to expect and accept creativity in the presentation of such posters. Successful creativity requires facilitating the viewer's reading of the material and sustaining, as long as possible, the interaction between the viewer and the poster. One method to assist viewers when an atypical sequencing of components is attempted is to have color keys, large numbers, or arrows to direct viewers' attention to the proper ordering of components (Kirkpatrick & Martin, 1991; McDaniel et al., 1993). Colored sections or large numbers may help viewers successfully progress from one section to another, no matter what the arrangement of materials. Similarly, single-tipped arrows may guide viewers through what otherwise might be an indecipherable maze of text or graphics.

Poster Visuals

Appropriately chosen visuals make a poster more appealing, create audience impact, and increase viewer comprehension (Matthews,

1990; McDaniel et al., 1993). Visuals effect how the mind gathers and processes information; thus visuals are powerful avenues of persuasion (Matthews, 1990). Posters presenting primarily quantitative, numerical information benefit from the judicious use of visuals, particularly figures, diagrams, tables, and graphs. Qualitative research posters, more than their quantitative counterparts, are uniquely suited to visuals. Particularly good visuals to consider using include artwork, photographs, and metaphoric artifacts. This is truly the area where authors of qualitative research posters can be the most creative, while simultaneously helping viewers readily grasp abstract ideas through visual stimuli. We observed that presenters used a variety of visual devices, such as greeting cards, icons, symbols, photographs, graphic designs, timelines, or other art work to emphasize, interpret, or otherwise convey areas of importance. The findings section was the typical place for visuals, as presenters used visual representations to supplement textual descriptions. Posters with good use of visuals included those where the visual complemented the presentation of textual information or where the visual enticed viewers to look more closely at the poster. One poster had interesting and readily meaningful art on each corner of the poster board, while another had photographs illustrating some of the poster's themes.

Visuals may present problems for viewers. Visuals requiring overinterpretation can be too much work, and some viewers will pass by to other posters where they do not have to work so hard to get the message. A particularly cluttered or visually unattractive poster may deflect viewers away from the poster (Sherbinski & Stroup, 1992). Problems we noted included having too many visuals, apparently unrelated or meaningless visuals, poorly placed visuals, or visuals that were too small. These problems increased our work as viewers and made viewing a highly interpretive process that required an overexpenditure of cognitive energy.

Poster presenters have some flexibility with regard to the presentation of materials, yet researchers and clinicians attending poster sessions are not expecting the same type of experience required of them as that which they would receive from visiting an art gallery. Qualitative research lends itself to an interpretive perspective, but when conveying research findings, the audience does not expect to conduct the analysis and interpretation the author did for the research. If this were expected, poster presenters could merely include large segments of textual or visual data, and viewers could draw their own conclusions. The purpose of a qualitative research poster is not

to have viewers interpret the poster itself, so viewer effort invested in that type of work in unproductive. Presenters of qualitative posters foster viewers' communication with their poster if they judiciously use visuals and include visuals that are not difficult to interpret or that have interpretations offered for the viewers.

SUMMARY

A qualitative research poster presentation involves a significant investment of time and money. Researchers can obtain the best return on their investment by blending creativity with certain key guidelines for posters. The most effective posters are those that make it easy for the reader to follow the flow of information, to read the material being presented, and to understand what is being presented and why the researcher chose a particular method of representation. Having a clear message, keeping the amount of words and phrases to a minimum, and using meaningful visuals to assist viewers in gathering and processing information are the three most crucial challenges in preparing a qualitative research poster. Creating an effective poster is no easy task and, in many ways, an exemplary qualitative research poster presentation may be more difficult to create than a paper presentation.

Just as there is wide variability in the types and ranges of qualitative research, there is and will continue to be variability in the reporting of qualitative research, whether in paper or poster reports. Although there is no one right way to present qualitative information via posters, some attention to the conventions described in this article will be helpful for the poster's audience. Creating a poster that is attractive and easy to read will entice viewers to stop and take notice, thereby widening the audience and increasing the likelihood that a larger number of persons will take home the crucial information the researcher has invested so much time in obtaining and presenting.

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