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A practical guide to designing a poster for presentation

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Summary

Poster presentations are frequently used to disseminate research findings and clinical initiatives at conferences, and present module material for educational courses. However, many nurses lack confidence when it comes to designing posters. This article considers the skills required to design a poster. Aspects of good poster design are also discussed.

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A POSTER FOR PRESENTATION has been described as a storyboard of information (Hardicre *et al* 2007). As in the writing of any narrative, the development of a story needs careful consideration. Scholarly attributes, such as the ability to develop an academic argument, are essential. However, different processes are required to those of writing an abstract or an assignment. Presenting facts or opinions in a poster is a different way of providing information for an audience.

Poster presentations can take place in many environments. A common example is a conference at which the poster reports on a particular scientific research finding that proves or disproves a hypothesis (Keely 2004, Miller 2006). Posters can also be used to disseminate

information about clinical initiatives or clinical policy updates (Moore *et al* 2001). Posters can be presented for educational purposes such as the presentation of module material (Windle 2001), or as part of a formative or summative assignment (Summers 2005).

Authors of posters must be committed to the process and believe that the act of producing and presenting a poster offers real incentives, considering the effort that is required. It is vital that they are not put off by the problems encountered in the production of the work.

A poster presentation can be an effective method of presenting data (Taggart and Arslanian 2000) and communicating research findings (Miller 2006, Hardicre *et al* 2007, Halligan 2008) at local, national and international conferences (Windle 2001). Large audiences can be harnessed through poster presentations at conferences (Keely 2004, Halligan 2008). Cleary and Walter (2004) report that, although the purpose of a poster presentation is to disseminate the researcher's work, the event can be a morale booster for the presenter because it offers an opportunity to enhance his or her reputation among other researchers. Windle (2001) suggests that the process of producing a poster can be inexpensive and easy. However, this does not appear to take into account the substantial investment, in terms of time that may be spent by those who present posters (Keely 2004).

The process of presenting posters is often considered less prestigious than giving a lecture or publishing work in a respected journal (Miller 2006, Halligan 2008). However, Halligan (2008) suggests that poster presentations have an advantage over published research in that information can be disseminated more quickly. Jackson and Sheldon (1998) suggest that poster

presenters have to be committed to the event, as posters often have to be presented at a specific time. It is only by presenters striving to improve the process of poster presentation over time, that the status of presenting posters at conferences will be enhanced.

This article offers an analysis of why producing a poster is a worthwhile exercise for the presenters. Whatever the purpose of the poster, there are common principles that need to be considered when it is being designed (Table 1).

Objectives of the poster

The objectives of producing a poster are important considerations. They are vital in enhancing the quality of the work. Many people become nervous at the idea of starting the project. Fear, stress and uncertainty are common problems that occur (Campbell 2004, Hardicre *et al* 2007). However, people generally present posters on topics in which they are interested (Jackson and Sheldon 1998), which gives them an opportunity to develop their ideas and obtain a sense of satisfaction. It is important to practise the process (Jackson and Sheldon 1998) and to understand the 'dos and don'ts' of poster presentation (Campbell 2004). The first principle is to overcome the fear and focus on the objectives of the exercise and the production of the message.

The rationale for producing the poster is best considered in the light of the many guidelines on poster presentation that have been produced. Boullata and Mancuso (2007) report that conference organisers usually have guidelines for people intending to display posters. Higher education institutions requiring students to

complete poster presentations as part of an assignment will provide criteria for completing the task (Summers 2005). The adherence to such guidelines in the production of posters is as necessary as it is in any other academic process, for example, speaking at a conference or producing a journal article. The conference organisers may require an abstract of the poster before the presentation (Taggart and Arslanian 2000). This ensures that the work is relevant to the purpose of the conference. In the higher education sector, tutors should make themselves available to offer guidance and support. Such partnership is useful in the production process and any feedback received needs to be viewed as a valuable commodity by the presenter (Hardicre *et al* 2007).

The quality of the title

The guidelines that the conference organisers provide will help presenters to interact with the conference audience (Taggart and Arslanian 2000, Windle 2001, Hardicre *et al* 2007). They provide information about how the posters should be presented and the timings of the event. Engagement with attendees is an important aspect to consider when planning the poster. In many situations the poster will be used as a basis for discussion between the presenter and viewer (Keely 2004). This discussion can, however, only take place once the poster or the presenter has caught the viewer's eye. Therefore, first impressions are important (Windle 2001). The title is an essential part of the poster and will help the presenter to engage with the audience. It needs to be short, easily understood, eye-catching and encourage the reader to examine the poster in greater depth. It should be no more than ten words (Taggart and Arslanian 2000). It should also be informative, as it will be published in the conference proceedings

TABLE 1

A summary of the principles to consider when producing a poster presentation

Number	Principle
1	Focus on the objectives of the poster.
2	The title is important.
3	The information you use and the style in which you use it can make or break a message.
4	The detail contained in the poster requires careful attention and the format needs to be appropriate.
5	Let your creative instincts shape the design.
6	As a presenter, you will need to make some judgements about the advice offered on poster production.
7	All aspects of the poster, including the display of information and the style used, need to be congruent to send a clear message to the reader.
8	The evidence base underpinning the process of displaying posters will only be enhanced if people are encouraged to participate in opportunities for future poster presentations.

(Miller 2006). The title needs to stand out and be in a large, readable type (Miller 2006). The quality of the title can result in new contacts being made, because the title can encourage those reading it to interact with the presenter and also with each other. The resulting interaction can lead to a discussion highlighting new information or revised views about the topic detailed in the poster. Therefore, it is useful to have some business cards at the presentation.

Use the right style for the information presented

The way the information is presented in the poster will assist recipients to visualise the important concepts. The ability to present information clearly allows the presenter to disseminate important ideas (Windle 2001), and the recipients to receive the message in the way it was intended. This transfer of information is important in conceptualising how the poster will look early on in the process. Researchers presenting findings at a conference or students producing assessment work in higher education need to have knowledge of the background and perspectives of the audience and see the poster from their viewpoint (Jackson and Sheldon 1998, Miller 2006).

Appropriate content and detail are vital (Hardicre *et al* 2007). Miller (2006) reports that many poster presenters fail to consider the statistical training of the viewer and that statistical vocabulary can vary across disciplines conducting health services research. Poor presentation of statistics will affect how the poster is viewed by the research community. The way in which the poster is structured allows analytical processes to develop in the viewer's mind. The use of questioning in the body of the poster offers the viewer an opportunity to think about the issues presented in a more critical fashion. This principle is fundamental, because the information used and the style in which it is presented will enhance or detract from the message and therefore the success of your poster.

Pay attention to the format and detail in the poster

The detail and format of presenting information in the poster should be considered early in its development. The style of a poster is reflected in the chosen format (Miracle 1999). It is important to establish that the poster will fit into the surroundings. For example, it must be determined whether the poster will be displayed on an easel, tabletop or bulletin board (Miracle 1999). Practical issues, such as the space available for the poster (Jackson and Sheldon 1998) and

transportation (Taggart and Arslanian 2000) need to be considered. Proper containers for transporting posters are expensive but can prevent the poster getting damaged.

The poster should be visible at three or four feet away (Keely 2004) or one and a half meters (Hardicre *et al* 2007). Taggart and Arslanian (2000) suggest that the use of colour is important. Keely (2004) states that certain themes in posters can dictate colour choice – for example, a pink colour may suit posters dealing with paediatric subjects. The recognition of disabilities in the audience is important. Some students who have dyslexia relate better to a presentation style involving the use of a cream, or off-white, good quality matt paper (British Dyslexia Association 2007). Pictures can be useful as they aid understanding (Jackson and Sheldon 1998, Windle 2001). Miller (2006) suggests that charts are an effective way to present some information. The aesthetic appearance of the poster can be tested on a small audience before the conference or event.

This principle therefore relates to the presenter's ability to attend to the detail of poster formation. This is not an easy task. On the one hand a presenter wishes to convey detail in the message he or she is trying to communicate (Hardicre *et al* 2007) and yet, because of limited space, the text should be used as effectively and briefly as possible (Tham 2001). Miller (2006) suggests that the body text type size should be no less than 14-point. It may be helpful to visualise a poster as being made up of several different concepts or panels. The final result is that each concept is clear and accurate in detail and fits with the next – like links in a chain. Suggestions for the layout and content of a scientific poster and a student's assessment poster are shown in Figures 1 and 2.

Be creative in the design

The process of attending to detail should not detract from the ability of the presenter to develop a creative poster design. The process of producing a poster can be fun. Many people will enjoy the spontaneous interaction with the audience that results when discussing the topic and in the way the information is portrayed (Taggart and Arslanian 2000). While certain 'rules' as set out in conference guidelines and assignment criteria need to be followed, there are numerous designs by which a poster can detail the route to a finding or conclusion. This involves challenges for the presenter who is designing the poster. It needs to be decided which shape, picture or layout of text fits the overall design best.

Halligan (2008) is clear about the value of involving other people in the poster's design.

FIGURE 1

Suggestion for the layout and content of a scientific poster

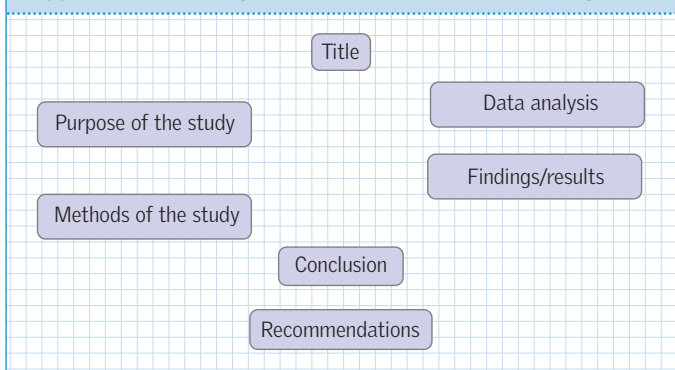
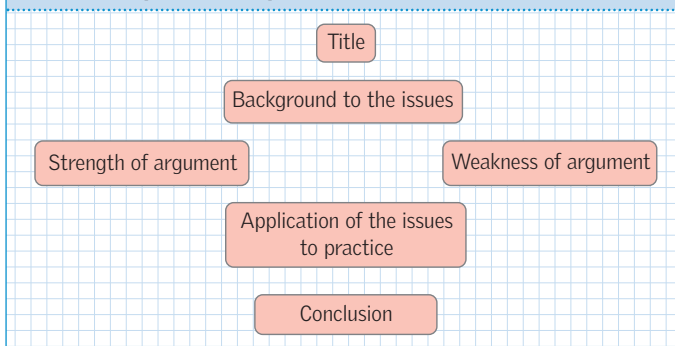


FIGURE 2

Suggestion for the layout and content of a student's assessment poster at diploma level



People may perceive the meaning of how ideas fit together differently and a team approach to design can allow the meaning of the overall poster to become clearer. In the author's experience, students find this process difficult because of their lack of experience in designing posters. Working in a group can assist in organising where on the page information should go as the poster develops. This can distract from the poster being merely an assessment process and allowing it to become an enjoyable experience. This principle encourages the presenter to use his or her creative instincts.

Make judgements about advice offered

A poster's designer may need to make judgements about what is a good style and what is not. This creative component of poster production is most obvious in the layout. Several authors offer advice on poster layouts

(Windle 2001, Hardacre *et al* 2007). However, Miracle (1999) emphasises the importance of the basic detail. For example, she states that as people read from left to right, the content of the poster should be organised to take this into account. For scientific research posters, Taggart and Arslanian (2000) recommend that after the title panel, the following sections need to be included: abstract or purpose of the study; methods or process; data analysis; results and conclusions. However, even in scientific research posters where it could be argued that more rigid guidelines about layout apply (Figure 1), debate continues about how and where the information should be presented. For example, Miller (2006) states that a summary of the project can be included on the poster. Windle (2001) suggests that as well as the summary (which she includes in the introduction), the purpose of the study should be highlighted separately, so that the audience has a better understanding of the study as a whole. This principle is that designers have to make judgements after considering the advice that they have received or read. This includes choosing the best methods in poster production to get their message across.

Style and information should complement each other

Good poster design allows academic arguments to be communicated in the final work. This involves judgements being made about the best design for the poster. Summers (2005) suggests that students can link theory to practical placements using posters. This could be achieved through a reflective process (Jasper 2003). Moule *et al* (1998) provide details of what an educational poster might look like and describe how students can use poster presentations as part of a learning process in critiquing an article. The poster should reflect an area of nursing practice and the content of the article should be summarised on the poster. The poster's author also needs to consider the academic level of the information that is to appear on the poster. For example, in undertaking work at diploma level the information in the poster should be put in the context of nursing practice.

In an educational poster the content should reflect the fact that the underpinning healthcare theory has been applied and critiqued within the presented work. The particular strengths and weaknesses of the subject should be highlighted and the conclusions should be clear (Figure 2). Just as with scientific research posters, good referencing is expected. The designer needs to consider the appropriateness of the references to the information presented and that these reflect the subject under discussion. This principle is

that the presenter needs to envisage the poster as a series of academic cogs. One turns the rest and if one is deficient then the rest will not turn in the reader's mind.

Participating in the process of poster production

In arriving at the final principle, three assumptions are made. The first is that any health professional with sufficient motivation can produce a poster to present at an event. The art is in being creative within the restrictions imposed by guidelines and criteria. The second assumption is that certain rules are emerging for all poster presenters, for example, the scientific research poster layout. However, there is some flexibility within these boundaries; for example, it may be felt that the format of using graphs rather than tables offers the best perspective on the data and therefore presents the conclusions in the best light.

The third assumption is that the theory of poster presentations is still developing. For example, the issue of the best format for transporting a poster (Taggart and Arslanian 2000) or the expectations of what to include in educational posters (Hardacre *et al* 2007) is still being debated. Some issues are a matter of

convenience for the presenter while others are key to the value of the presentation. Summers (2005) states that the validity and reliability of poster presentations has not been defined in the way that they have for written assignments. Indeed, she adds that many educationalists are trying to discover what the ideal poster for a particular assignment should look like. This search leads to the final principle: unless potential presenters – whatever the purpose of their poster – have the courage to participate and enter the process, the evidence base for an important method of disseminating information will not progress.

Conclusion

Poster presentations are often used to disseminate research findings and clinical initiatives at conferences and to present module material for educational courses. This article has outlined eight principles that can be used in designing a poster presentation. As the theory underpinning good poster presentation is still developing, these principles may require revision and refinement. However, they do provide a practical guide for nurses who may be new to poster presentation or lack confidence in this area **NS**

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