



Poster Presentation at Scientific Meetings

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K. Gokulakrishnan and B. N. Srikumar

Abstract

The poster presentation is an integral part of the scientific journey. It plays an important role in developing the research career of the researcher, especially novice researchers and budding scientists. The process of poster presentation begins with the abstract submission to the conference secretariat. Once the abstract is accepted for presentation, the preparation of the poster begins. Before making the poster, it is essential to draft, review and revise the content in IMRaD format without much emphasis on the discussion. Then design the poster using presentation or any other designing software, review and revise the content in the layout before printing it. When designing the poster's layout, organize illustrations and text using a grid plan, placing most significant findings at eye level and using muted background colours. It is better to keep the content less, with good illustrations to attract the viewers' attention. Once the content and design are completed, it is important to edit

carefully and review meticulously. Before the presentation at the conference, rehearse the presentation to improve the flow of thoughts. Utilize the opportunity to develop the science and network with peers. Poster presentations, when done well, can significantly contribute to scientific and career advancement. This article aims to provide a comprehensive approach to preparing a poster and making a successful presentation.

Keywords

Communication · Poster presentation · Conference · Scientific meeting · Career advancement · Networking

49.1 Introduction

Poster presentation in scientific meetings is a way of effectively communicating the research findings in a nutshell, taking advantage of the poster as a visual aid. Notably, the poster presentation offers a forum for close interaction. But it becomes difficult if the author must describe and explain the poster's content to a succession of viewers. Therefore an effective poster is self-contained and self-explanatory so that the viewers can proceed on their own while promoting discussion where required [1]. The poster presentations offer several advantages. The first and foremost advantage is that the format permits

K. Gokulakrishnan (✉)

Department of Neurochemistry, National Institute of Mental Health and Neuro Sciences, Bengaluru, Karnataka, India
e-mail: gokul@nimhans.ac.in

B. N. Srikumar

Department of Neurophysiology, National Institute of Mental Health and Neuro Sciences, Bengaluru, Karnataka, India
e-mail: kumarasri@nimhans.ac.in

research presentations that might still be in progress. It enables the presenter to confidently present the research findings, interact with peers and experts in the field, and provide an opportunity for one-on-one interaction. This will help the presenter to come up with ideas to address the potential gaps and expand the research work. It also triggers networking, exchange of ideas and creates opportunities to collaborate with peers. Unlike oral presentations, the time spent on a poster is determined by the viewer rather than the author [1]. The advantages of the poster presentation are given in Box 49.1. While there is a notion that poster presentation is done only by the novice in the field, this may not be true, particularly in larger society meetings and conferences, where even established scientists use posters to communicate. This article provides a comprehensive approach to preparing a poster and making a successful presentation.

Box 49.1 Advantages of a poster presentation

- Work in progress can also be presented
- Builds confidence to present the research findings
- Promotes interaction with peers and experts in the field
- Provides an opportunity for a one-on-one interaction
 - Ideas to address the potential gaps and expand the research work
 - Triggers networking, exchange of ideas, and creates opportunities to collaborate with the peers

49.2 Planning for a Poster Presentation

49.2.1 Abstract Submission

It is often not necessary to complete the proposed research and submit an abstract for poster presentation at a conference or scientific meeting. Therefore, a poster presentation can be made even with preliminary findings, which can give further directionality to the proposed work. Identifying

a scientific meeting or conference that would be appropriate to present the work and capitalize the scope is essential. It is worthwhile investing time in preparing a good and relevant abstract so that it will be selected for presentation. Make the title of the poster interesting and concise so that it will grasp the attention of the attendees [2]. Carefully go through the guidelines given by the organizers for the submission of abstracts. Depending on the conference guidelines, the abstract may need to be structured. Irrespective of the structuring requirement, the abstract should contain the following: It should begin with the background or rationale of the work, followed by aims/objectives, methodology in brief, results, and conclusion. Pay attention if there is a word limit for the abstract and restrict the abstract within the limit without compromising scientific content. Before submitting to the conference secretariat, obtaining the inputs and suggestions of the mentors and expert colleagues is often helpful. Then, submit the abstract according to the Conference guidelines.

49.3 Preparing the Poster

Before starting the preparation for the poster, it is critical to go through the guidelines given by the conference secretariat. This would include the dimension of the poster and the poster material. Sometimes, they might offer detailed guidelines for poster preparation and presentation. It is always better to start the poster preparation well ahead of allowing sufficient time for each of the following:

- Drafting content
- Reviewing draft content
- Revising content
- Designing the poster
- Reviewing and revising content in a layout
- Obtaining final approval
- Printing

With the advent of technology, making a poster can be quite easy with presentation software programs such as Microsoft PowerPoint. Butz et al., have provided a detailed description of using PowerPoint to make a poster [3]. This will

also facilitate the ease of drafting and reviewing the content. The presentation software can easily convert the final content to a large poster size. The availability of large size printers and page-layout software permits the economical production of effective and attractive posters on a single sheet that can be easily carried to conferences in a poster tube or as a folded one [1]. Use line borders to separate areas. Avoid reflective, plastic-coated paper. Nowadays, a miniature poster, which can be handed out to the viewers, may be a good idea to attract collaborations.

49.3.1 The Layout of the Poster

Consider organizing illustrations and text using a grid plan. Arrange materials in columns rather than rows—this format is more straightforward for viewers to read. Place the most significant findings at eye level immediately below the title bar; place supporting data and/or text in the lower panels. Use muted background colors—shades of gray are also effective [1].

49.3.2 Content of the Poster

One of the most common mistakes is too much content on the poster, which makes it appear cluttered. Always remember that a poster is not a manuscript; hence content should be selected judiciously [2]. Begin with the essential elements that correspond to those of the abstract and include the following:

Header with title, author(s), institution(s), indicate the presenting author, and provide the presenting and corresponding author's contact information. Similar to a research article, follow the IMRaD format (Introduction, Methods, Results and Discussion/Summary) [4]; however, a detailed discussion may not be required. Include acknowledgements and references as appropriate. An abstract is not required on the poster. There are also innovative ways of poster presentation, including the QR code to access the poster or additional details virtually [5, 6]. There can be no single way to design an effective poster. We

present an example in Fig. 49.1, which is meant to serve as a general guide when preparing your poster.

An effective poster distributes illustrations and text equally and should not be a page-by-page printout of a journal article or a slide presentation [1]. Minimize the text because the attendees may not have the time to read; instead, use figures or flow charts [2]. Box 49.2 provides the do's and don't's of poster presentation.

Box 49.2 Dos and Don'ts of a poster presentation

Dos	Don'ts
<ul style="list-style-type: none"> Go through the guidelines 	<ul style="list-style-type: none"> Do not use too much text
<ul style="list-style-type: none"> Determine the audience, focus of the event 	<ul style="list-style-type: none"> Do not clutter the poster with a lot of content
<ul style="list-style-type: none"> Plan ahead, start with a skeleton and draft the content, use optimal range of font size 	<ul style="list-style-type: none"> Do not use small font size or small figures
<ul style="list-style-type: none"> Arrange materials in columns 	<ul style="list-style-type: none"> Do not forget to remove the poster after the presentation
<ul style="list-style-type: none"> Place significant findings at eye level 	
<ul style="list-style-type: none"> Use captivating visual elements 	
<ul style="list-style-type: none"> Use colours judiciously 	
<ul style="list-style-type: none"> Revise meticulously 	
<ul style="list-style-type: none"> Rehearse the presentation 	
<ul style="list-style-type: none"> Paste the poster on time and be available during the poster session 	

49.3.3 Attract the Attention of the Viewers

The viewer's attention span depends on the presentation and content [7]. Therefore, it is important to capture the attention of the viewers—which leads us to the popular 10–10

Logo of
the
Institution

An Attractive Poster Title: Visible from a Distance

First Author, Second Author, Third Author, Corresponding Author
Affiliation
Address
Contact details

Logo of
the
conference

Poster No.

1. INTRODUCTION

- Pertinent and Brief
- Presented as Bullet points
- State succinctly what is known in the literature, i.e. brief background to the study,
- Include the lacunae and the rationale
- Objectives of the study

2. METHODOLOGY

- Should be brief but sufficient enough to understand the flow of work
- Can be presented as a flow chart also



Use photographs, cartoons or diagrammatic representations which will be self-explanatory

Statement on approval by the Ethics Committee or other regulatory authorities

3. RESULTS

A. Present figures or illustrations in a way that it can be viewed from a distance



Photomicrographs or photographs, graphs can be used

4. DISCUSSION/SUMMARY

- Using bulleted points, succinctly describe the summary of the findings
- Avoid unnecessary speculations and detailed discussion
- Provide directionality of the findings with future perspectives.

5. REFERENCES MAY NOT BE REQUIRED

6. Acknowledgements

B. Representative track plots can be used

Title of the figure



Title of the figure



C. The main message from each of the figures can be presented on top of it with clear points.

- A detailed figure legend may not be needed
- Concisely describe not only the content of the figure, but also the derived conclusions

a. Hypertension (20%)



b. Total mortality (20%)



c. Total mortality (20%)



d. Hypertension (20%)



e. Total mortality (20%)



f. Hypertension (20%)



Avoid cluttering of the poster

Fig. 49.1 Sample poster

rule—attendees spend only 10 s scanning posters as they stroll by from a distance of 10 ft. [2, 8]. Accordingly, use captivating visual elements (graphs, photographs, illustrations, and even cartoons) to attract attendees to your poster, and sparingly use tables. Each section and illustration should have meaningful titles without needing text such as figure legends [1, 2]. Colours are effective, however, excess use will make the poster gaudy; it is better to use contrasting colours for backgrounds and foregrounds (use dark colours on white or pale backgrounds and light colours on dark backgrounds) [1]. Finally, determine the event's audience and focus and prepare the poster accordingly.

49.3.4 The Title

The title is critical to attract attention of the attendees. For example, the title can be a decisive question, the scope of the study, or highlighting a new finding. While it is possible that some scientists may arrive at specific posters depending on their interests, others may see the title and decide to visit the poster on the spot. Therefore, the title should be catchy and lettered in a font (at least 1-in. high) that is visible from a distance, short and understandable to a broader audience [1].

49.3.5 Introduction

It is good to keep the introduction pertinent, brief and presented as bullet points. State succinctly what is known in the literature, i.e., a brief background to the study, move on to the lacunae and the rationale, and end with the objectives.

49.3.6 Materials and Methods

Unlike a manuscript, the materials and methods section should be brief but sufficient enough to understand the flow of the work and techniques involved. It could also be presented as a flow

chart. The use of photographs or a diagrammatic representation of the methodology which will be self-explanatory may also be an option. Alternatively, the methodology and study design could be merged into the pertinent results. It is important to include a statement on the Ethics Committee or other regulatory approvals for the study (if appropriate).

49.3.7 Results

Present figures or illustrations in a way that can be viewed from a distance and avoid too many figures, which would make the poster crowded. The main message from each of the figures can be presented on top of it with clear points. A detailed figure legend may not be necessary but instead, that space can be used to integrate text that would normally appear in the body (Results and Discussion) of a manuscript. Concisely describe not only the content of the figure but also the derived conclusions [9, 10].

49.3.8 Summary/Conclusions

Using bulleted points, succinctly describe the summary of the findings in this section. Avoid unnecessary speculations and detailed discussion. Provide directionality of the findings with future perspectives.

49.3.9 Edit Ruthlessly and Review Meticulously

First, ensure that the main message is clear and the content is self-explanatory. Avoid long sentences and use phrases or bulleted points in active voice and plain language, wherever possible. Avoid jargon, but some technical language may be appropriate to attract the aficionado. Invite colleagues to review the layout format and explain the main message.

It is advisable to review the poster in a A4/letter size sheet printout before printing the final

full-size poster. The focus for crispness and completeness of text, includes logical line breaks, appropriate coloration, avoid pixelation and artifacts. Wait for a few days and then proofread again, and request someone unfamiliar with the poster to review it [2].

49.4 Presentation of the Poster at the Conference

Judge the competence level of the audience and customize the presentation. It is important to rehearse the presentation, which will improve the flow of thoughts and focus on the point of discussion. Be cognizant of the presentation guidelines (if any) that are provided by the organizers. The posters should either be fastened on the board or pinned to the board based on the guidelines provided by the Conference Secretariat and the presenter should be available near the poster at the given time and removed once the presentation is completed.

49.5 Concluding Remarks

A poster presentation is an opportunity to showcase the research work even if it is still in progress. It provides a platform for effective interaction between the presenter and the experts in the field, thereby creating an opportunity to address the gaps and expand the research work. Often other participants share their own bench-level experiences with the presenter validating the findings, helping in troubleshooting difficult experiments, providing new ideas for future research projects and promoting networking with contemporaries [10]. Poster presentations when listed on the curriculum vitae serve as indicators of research experience and performance [8, 10]. Several scientific societies offer attractive incentives to promote young scientists in the form of ‘best poster

awards’ or ‘travel awards’, which could strengthen the presenters’ curriculum vitae. Sometimes, this platform may be used by even journal editors to seek manuscripts or by academia and industry leaders to offer career opportunities. Therefore, the poster presentation is a very important part of the scientific journey and can be highly beneficial if put to good use.

Conflict of Interest None.

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