**Education Column**

Methodology of Abstract Preparation and Presentation: Target and Pitfalls

JCM Chan

---

**Abstract**

To write and present an abstract is like teaching – a meaningful and fulfilling learning experience. To succeed, capture audience attention from the start. Present your research aim and results in an elegant and simple manner. Do not give confusing details. Concentrate on concepts. Give concise figures and messages. Finally, close with a succinct and strong summary. A poster session is a friendly forum for scientific exchanges. The conference attendees can go back and forth on data in a poster, particularly if complicated tables are used, and quiz the poster presenter until questions are clarified. Poster communications are great for networking and personal contacts going into future collaborations. An oral presentation is different. Usually, the time limit compels a strategy of utmost clarity and brevity. In this article, we shall concentrate on the ways and means to make your presentations good learning experiences. Finally, we shall focus on how to give a confident, strong oral delivery that your research deserves.

**Key words**

Abstract preparation; Poster and oral presentation; Slide design

---

**Introduction**

Teaching is always a learning experience and an exceedingly rewarding interactions. The aim of this article is to focus on how to write an abstract, and the most effective way of presenting a research project to an international congress.

**Abstract Preparation and Presentation**

We assume that at this point, or sometime into the future, the research has been done and that you are ready to submit your abstract. If you have done a good enough job, your abstract will be accepted for oral or poster presentation in an international congress.

An important aim of a congress is exchanging scientific information. Discussions between participants play an important part – realised only when everyone is heard and understood. Because your audience likely has traveled great distances to a congress for such exchanges, the presenters must try their best to be stimulating, and informative. Be succinct. Do not give confusing details. Do not design complex figures and tables. We will examine each of these somewhat contentious issues in this discussion.

---

**Abstract Submission**

Regarding abstract preparation, be aware that submission requirements are different for each particular congress. Do pay close attention to their specific submission instruction and follow them carefully. Then focus on writing your abstract, which is relatively simple.

Abstract design is like a canvas on which you lay out the following points. Namely: background, specific aims, significance, innovation, method, results and conclusion.

---

The Barbara Bush Children’s Hospital, Maine Medical Center, Portland, Maine, USA

JCM Chan  MD

Correspondence to: Prof. JCM Chan
Let us demystify these big words:

- **Background**: should include what relevant work has been done.
- **Specific aims**: what you propose to do.
- **Significance**: is to highlight why your research is important.
- **Innovation**: what is absolutely new in your project?
- **Method**: how you have done it.
- **Results**: what have you found?
- **Conclusion**: what your data mean.

Actually all these points should be clearly and firmly in your mind at the onset of your project. You should already be cognizant of the importance and potential impact of your research, and how you are going to get there. So when you finish your research, all you have to do is to put your results together and conclude what the results mean.

**Differences Between Oral and Poster Presentations**

Most oral communications in a congress are limited to 15 minutes each. It might include the 5 minutes question and answer period. So the length of time is really, really short for you to tell the audience about your research.

With poster communication, the audience can go over your data at their own pace. They can spend as much time as they like on your figures and tables, until they are satisfied or ask you to explain them to their satisfaction. In view of such scenarios, there is room in poster communications to accommodate complex figures and tables.

In poster communications, aside from the fact that complex figures and tables can be used for the reasons just mentioned, there are other important advantages of poster sessions. Poster sessions are excellent and friendly forum for scientific exchanges, and personal contacts. Finally, poster communications are great for networking and future collaborations.

In most oral communications, clearly the time for presentation is limited. Here, ideas must be conveyed in short, clear statements and words must be chosen with care, to convey what you want the audience to understand and remember.

Even though the time constraints of an oral presentation are severe, there are areas worth spending a little bit of time. Let us examine this for a moment.

**Take Advantage of the Differences**

Your submitted abstract is reviewed by a select panel with expertise in your field of research. In oral presentation, you are giving your original data to an audience in a large hall, not everyone in the hall is as immediately familiar with your area of research, as this select panel of expert reviewers. So, to bring a general audience on board, you may want to take a bit more time to go over the significance of your work, beyond what you have written in the abstract. This is an example of extra time well spent, in an oral presentation.

In designing your slides, think out clearly what points you want each slide to convey. Do not make too many points per slide. Use easily readable fonts for the text and to label the axis of graphs. Remember to explain the axis before going into any details about the graph, so the audience knows what you are talking about. Explain every graph and figure. That is another example of time well spent, for an oral presentation.

Finally, you may want to consider using a graph rather than a table in a slide presentation. Slides are visual instruments. The audience can take two numbers from a table, for comparison easily. However, the situation is different when you present complex sets of data for multiple comparisons. It is not difficult to transform such data to graphic form. In doing so, you are making it easier for the audience, to compare different columns in a graph instead of sets of data from a table for multiple comparisons. In addition, the data in tables are usually in smaller fonts, making it difficult for the audience sitting in the back of the hall to see what you are describing and they may miss what you are describing on the screen.

**Designing Slides**

The best slides avoid confusing details and concentrate on concepts. Well-focused, simple figures and messages go across best. So keep slides elegantly simple.

We come now to the most important preparation – the design of the last slide – the all-important summary of a talk. This is the essence – the impact - everything you hope will be remembered about your presentation, if the audience remembers nothing else.

You want a summary of the ideas presented and leave the audience with the central theme firmly in their minds.
You can simply re-state the central thesis of your study and re-emphasize the main conclusions from the results. Above all be succinct and clear, and you will get across what you want the audience to remember.

Effective Oral Delivery of a Talk

Now, you are ready to deliver your talk. All of what has been discussed so far is the visible outcome of your careful planning. But remember, the most important preparation is invisible – a conceptual atlas in your mind of the aim, structure, and conclusions of your projected talk.

For oral presentation, the opening words must be simple, easily understood – to capture the full attention of the audience at the start – otherwise you run the risk of never securing it at all.

Bear in mind as you prepare for an oral presentation, that you must state your research objectives with the greatest possible clarity. Concentrate on concepts. Eliminate confusing details. Avoid complex figures and tables. There is more opportunity and time for complex figures and tables in a poster presentation.

In a 10 minute oral presentation, you are like a downhill skier:
- the presentation is linear;
- there is no time to go back to a previous point;
- the audience absorbs concepts more readily and the mind goes forward to the next idea;
- do not weigh it down with too much complex details, especially when you are under severe time constraints to start with;
- leave complex details to the question and answer period and hope the audience will take the initiative to ask for them and you have the answers ready.

Finally, let us go over a few practical pointers on effective delivery:
- Make sure the length of your talk is within the time limit. So you do not have to rush through your presentation towards the end.
- Familiarity with your speech makes a smooth delivery more certain.
- Watch other presenters’ gestures and platform posture. Pick the ones you like to incorporate into your own presentation.
- Have eye contact with the audience. Pick out several individuals in the audience and speak directly to them in turn.
- Project your voice with confidence.
- Above all, be yourself with platform ease and spontaneous gestures.

Summary

To summarise: capture audience attention from the start. Keep slides elegantly simple. Do not give confusing details. Concentrate on concepts. Give concise figures and messages. Close with a succinct and strong summary.

This may be the first time your data are being presented to the world. Take heart, you can be well assured you know a lot more about your work than anyone in the audience. Your audience may have travelled thousands of miles to listen to you. Give a confident, strong delivery that your research deserves and the rest will take care of itself.

Acknowledgements

Supported by NIH grants: RO1 DK 31370; RO1 DK 32431; T32 DK 07526; RO1 DK 50419; T32 DK 07761.