

How to present a paper at a scientific meeting

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Summary

Background and objectives:- Presentation of a scientific work is a learned skill that requires constant improvement especially now with the use of computer aided presentation - Microsoft PowerPoint. It addresses the peculiarities of preparation for a conference in a developing country.

Methodology:- Description of personal experience acquired through training and practice at scientific conferences has been stated. Relevant books and articles have been cited.

Results:- The four parts of a presentation (preparation, presentation proper, questions and answer sessions and handling stage fright) and the effects of successful presentations have been highlighted.

Conclusion:- Scientific presentations are essential to a researcher throughout life and the skills can be learned and/or improved upon through desire to learn, determination to succeed, training and constant practice of the process.

Keywords: *Scientific presentation*

Résumé

Introduction et objectifs:- Présentation d'oeuvre scientifique est une connaissance intellectuelle que demande une amélioration continue surtout de nos jours avec l'utilisation de présentation assistée par ordinateur-Microsoft Prise de courant. Elle aborde le problème en ce que est de la préparation pour une conférence dans un pays en voie de développement.

Méthodologie:- Une description d'une expérience personnelle acquise au cours d'une formation et pratique lors d'une conférence scientifique est l'objet de ce travail. Tous renseignements utiles, livres et articles ont été cités.

Résultats:- Les quatre sections d'une présentation (Préparation, Présentation proper, Session de questions et réponses et l'étape du maniement et d'effroi) et les effets d'une présentation couronnée du succès ont été soulignés.

Conclusion:- Une présentation scientifique est indispensable pour un chercheur durant la vie et on peut apprendre et ou améliorer la connaissance à travers le désir d'apprendre, la détermination de réussir, formation et pratique continue de processus.

Introduction

Many published articles on writing a research work exist,¹⁻³ however, there is need to augment some of the existing literature on presentation at scientific meeting⁴⁻⁷ because none appears to have addressed the peculiarities of a developing country. This is the aim of this article; it covers preparation, the presentation proper, the question and answer session and how to cope with stage fright or other negative events encountered during a scientific presentation. Presentation of a scientific work is one test of a researcher's

communication skills-speaking, writing, reading and listening. A good researcher would be confronted with opportunities to utilize or inadvertently exhibit these skills at some or all various stages of research. Personal experience at conferences in the sub-region mentioned by Ajayi et al⁸ suggests that the skills, demonstrated by many presenters who had done good research work, need improvement. The positive comments received following presentations by a few others have encouraged writing this article to assist many researchers especially in the sub-region to improve their presentation skills or highlight what makes a good presentation to the inexperienced researcher who may need to develop them. Every researcher needs constant improvement of these skills since presentation of speeches or results of a research work is done throughout the life of the researcher.

The preparation

D'Souza had written that 70% of all organizational communications - written and oral-fails to achieve the purpose.⁹ Skill in communicating does not come without planning and effort. There is a hidden characteristic among good public speakers. They have learned the skill of public speaking from frequent practice, motivational books on the subject,⁹⁻¹⁴ and training courses on public speaking or a combination of any of these. This is a proof that public speaking is a life skill that can be taught, learned, imbibed and practised to perfection or excellence. As soon as announcement fliers for a conference are released, the prospective presenter plans a presentation around the theme of the conference or the researcher structures his research report towards the theme or sub-theme. A literature search is then embarked upon to broaden the scope of the research.³ The completed work is then written up in the format for submission to a suitable journal¹⁵ so that after the conference, this would be accomplished.¹⁶ Indeed, the question and answer session at the conference may throw up new insight that the researcher had not considered before. A good summary or abstract usually between 200 to 400 words can then be extracted from the written work and submitted to the conference organizers. The preferred mode of presentation is stated (either oral or poster and the type of audio-visual requirements: overhead projector, slide or computer projector). This point is important in developing countries so that the organizers can make special efforts to get the materials. The presenter is also advised to demand an acknowledgement of receipt of the abstracts sent because of communication difficulties in developing countries. This author had experienced lost abstracts or misplaced abstracts which then were not reflected in the book of abstracts. Usually, an abstract number is given after submission and approval given by the scientific committee of the conference.

The presentation proper (planning and delivery)

Planning the presentation proper

The options available include the use of transparencies, slides or computer presentations using Microsoft PowerPoint software. The minimum number of projections to be used should be five; one each for the problem under study (or background to the topic), the objectives, the study design

Table 1 Suggested distribution of use of slides and timing of speaking

Stage of presentation	Number of minutes	Number of slides
Problem under study	1	1
Objectives of study	1 or 2	1 or 2
Study design	1 or 2	1 or 2
Results	3 or 5	3 to 6
Conclusions	1 or 2	1 or 2

Making a Scientific presentation

Planning the presentation proper

The options available include the use of transparencies slides or computer presentations using Microsoft Power point software. The minimum number of projections any of these should be five: one each for the problem under study (or background to the topic) the objectives, the study design (materials and methodology) the results and the conclusions from the study. From these minimum the presenter can increase the number to accommodate more relevant information the researcher hopes to pass across to the audience which will include important observations, tables of results, clear pictures or diagrams. How much time is allowed



Fig. 1 An example of a bulky slide

GSI in Ilorin Solagberu

Background

- GSI is the 2nd leading cause of trauma death worldwide
- GSI has highest case fatality ratio of all causes of trauma



Fig. 2 An example of a simple slide used in a presentation on gunshot injuries (GSI) at the 2003 West African College of Surgeons conference and now published.¹⁶

(materials and methodology), the results and the conclusions from the study. From these minimum the presenter can increase the number of projections to accommodate more relevant information the researcher hopes to pass across to the audience which will include important observations, tables of results, clear pictures or diagrams. How much time is allotted for presentation and how complex the study can determine the number of slides or transparencies the presenter would need. For instance, the presenter should attempt to spend a minute on each slide; hence, the speaker will need an average of 10 slides for a 10-minute presentation, Table 1. It would be

Figure 3: using texts and figures in a paper presentation on Gunshot injuries (GSI) of the 2003 West African College of Surgeons meeting now published.¹⁶

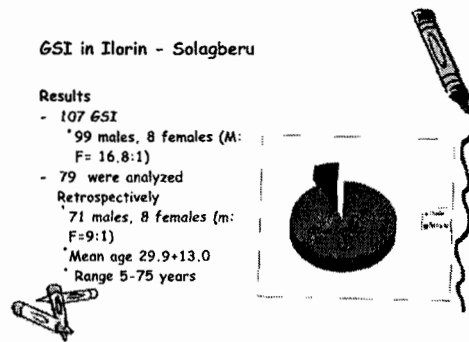


Fig. 3 Using texts and figures in a paper presented on Gunshot injuries (GSI) at the 2003 West African College of Surgeons meeting now published.¹⁶

more if some slides include pictures that are straightforward. It could be less than 10 if some slides contain highly technical and complex results that take more time to explain.

Use of texts, tables, figures and pictures

Avoid bulky or crowded texts on a slide (Figure 1) and use no more than seven items on a slide⁷ (Figure 2). The advent of the computer software Microsoft PowerPoint has made presentations a lot better, easier, cheaper and more technical which situation has guaranteed greater effects. The old methods of using slides are expensive to make and to update in developing countries. A slide costs about \$1.3 USD in Nigeria and that is when one is lucky to get the facility. Slides are too bulky to carry around. Another advantage of PowerPoint is the ease of modification of your file even just minutes before a presentation. The use of transition and animation facilities gives further effect to the delivery and encourages audience attention quite apart from the content of the presentation. A slide can drop down, show checkerboard effect or fade out before another one appears. There are slides that contain both tables and texts or figure (figure3). Another added facility is computer timing of the presentation, particularly useful for those without time discipline during oral presentations. The only problem is the initial investment by an institution or department to procure the multi-media projector, but happily the costs are coming down from a little over a million naira (\$10,000) in the late 1990's to just about 400,000 naira (\$4,000) now.

The presentation proper: the delivery

There are certain general rules about delivery. A paper should be delivered not read, hence, speak extempore.^{7, 13} This does not mean cramming your presentation; rather it is a test of the presenter's ownership of the presented material and the depth of his/her understanding of it before earning the right to speak about it.¹¹ Hence, with some rehearsal and the use of slides you can very well deliver your talk. However, you may make use of some note cards to remind yourself of important points or examples not shown in your slide. What then is the purpose of written speech if it is not to be read? The purpose of the written speech is for records prima-

rily and then for publication.

The presenter should check the hall and the facilities before the presentation; the acoustics, electric points, the microphone - cord or cordless, the projectors, the lighting effects, the pointers - retractable or laser type or the use of a stick so that there is familiarity with what is to be used. There is no point tripping over the cord on the floor or letting an improper use of microphone mar the beauty of your presentation. The presenter should avoid blocking the view of the audience while pointing at the slides. Also to be avoided is the bad practice of reading verbatim the contents of the slide; rather, make a conversational presentation by pointing out salient points on the slides. The audience can read the rest except when explaining technical details.

The importance of rehearsing the materials especially keeping to time can not be over emphasized. The skills of delivery include what is said - content of your research and how it is presented - the vocal, the voice, tone, phonetics of the presenter, are responsible for 8% of the effect of the presentation.^{10,11} Additionally, the verbal component - the words used take up another 37% of the effects while the visuals - pictures, the appropriate gesticulations - and the appearance, are responsible for 55%.^{10,11} Therefore, be yourself and do not imitate others unduly. The most important part of a speech is the last sentence: conclusions spelling out in usually three sentences that contained the information that has been passed across while the opening part of the speech is the second most important sentence: the background and objectives that describe the relevance of what is to be presented.¹⁴ Therefore, take the time to look for good openers and fine endings. Another note on preparation is to be ready for equipment failure in developing countries with mono-equipments and no immediate replacements. This can be hard to cope with because you have worked hard for months, travelled long distances, made serious preparations and efforts only for equipment to fail you. So prepare a poster pictorial summary of your work to replace transparencies while transparencies can be made ready to replace any PowerPoint projector failure.

Questions and answer sessions

This is another aspect of your presentation. Your questioner might make a point that you had not considered before now; acknowledge this and offer to look into it. But beware of detractors or put-downers or competitors who meant negative. Do not reply in like manner but restate the issues as you have presented them and often enough the audience is perceptive to appreciate your good presentation cannot be shot down by a detractor.

The stage fright and how to handle it

Most speakers including the best ones around experience this but they have learnt how to handle themselves and the situation. Stage fright is a physiological demand on you because you expect and demand something of yourself in the task before you - presenting a scientific work before an audience that includes a lot of people, your peers, mentors or protégé and persons who you know would or could mesmerize your work as worthless. With confidence in your prepara-

tion and the work you have done which you are now proud to present, just get into the job at hand and start right, your nervousness will decrease.^{13,14} From personal experience, four things are sufficient to handle stage fright: self-confidence, belief in self, good preparation and regular practice of presentations. Just start and you would not have to worry about stage fright again.

Conclusion: the example of the West African sub-region

Residency training in the sub-region⁸ is conducted by both the West African Postgraduate Medical College and the Nigerian National Postgraduate Medical College, both of which encourage clinical presentations at morbidity and mortality meetings and grand rounds. Common forum where the skill of presentation of research findings can be judged include the scientific meetings of "the Nigerian Surgical Research Society, conferences of the West African College of Surgeons, the Nigerian National Postgraduate Medical College and the Nigerian Chapter of the International College of Surgeons, to mention a few".⁸ Experience at these conferences revealed the excitement of the very few who had mastered the art of scientific presentations and the frustrations of some others who had excellent research findings but blemished by poor presentation skills. Yet, from personal observation, all presenters form only between 5 - 10% of conference participants and more than 95% of these presenters are of consultant cadre. Scientific presentations should be an art these consultants would readily teach their residents. It is hoped that this account would help more persons embrace presentation of their work at scientific meetings.

References

1. Ajao OG: Peer review and referencing in medicine and medical sciences. *Saudi J. Gastroenterol* 1997; 3: 107 - 112.
2. Ajao OG: Writing a clinical research paper. *Saudi J Gastroenterol* 1999; 5: 45 - 49.
3. Solagberu BA: Literature search in medical publications. *West Afr. J Med* 2002; 21: 329 - 331.
4. Guthrie E: Presenting a talk at a scientific meeting. *Br J Hosp Med* 1992; 47: 54 - 5.
5. Calnan JS, Barabas A: Speaking at medical meetings: A practical guide, 2nd ed. Heinemann Medical, London. 1981.
6. Baron JH: Presenting a paper at a scientific meeting. In: Principles of surgical research. Mathie RT, Taylor KM(eds) 2nd ed Butterworth-Heinemann, London. 1995; 211 - 221.
7. Gelula MH: Working with slides and transparencies for presentations. *Surg., Neurol* 1996; 47: 308 - 312.
8. Ajayi OO and Adebamowo CA: Surgery in Nigeria. *Arch Surg* 1999; 134: 206 - 211.
9. D'Souza A: Communicating effectively: In Leadership. Better yourself books, Bombay. 1993; 140 - 147.
10. Tracy B: The master program. In: Maximum achievement. Simon & Schuster. New York 1993; 59 - 107.

11. Carnegie D: The quick and easy way to effective speaking. Cedar, Cox & Wyman Ltd., Reading. 1991. win - 12 key points for success. Pitman publishing, London. 1995; 53 - 68.
12. Robbins A: Unlimited Power. Ballantine Books. New York 1987.
13. Marland M: Speaking skills. In: Studying, reseach and growing up. World Book Inc. Chicago 1995; 20 - 25.
14. Goldman H: Finding a captivating start. In: Communicate to
15. Frank E: Author's criteria for selecting journals. JAMA 1994; 272: 163 - 164.
16. Solagberu BA: Epidemiology and outcome of gunshot injuries in a civilian population in West Africa. Eur J Trauma 2003; 29: 92 - 96.