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Methodological letter

How to prepare an oral presentation for a scientific congress

¿Cómo preparar una comunicación oral científica para un congreso?

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The aim of scientific communication is, as the name suggests, to communicate and transmit information effectively to listeners. Whatever the content, the ultimate goal must be to get the intended message across clearly, concisely and effectively. This article aims to clarify concepts and provide guidelines for the proper preparation and presentation of an oral communication at a scientific conference.

Planning and preparation

Before preparing the oral presentation, it may be useful to ask yourself some questions to better define the objectives and the message to be conveyed. What is my objective? Who is my presentation aimed at? What is the main message or content I want to convey? How am I going to approach the presentation and with what means? How much time do I have available?[1]

Instructions regarding the format and time available for the presentation are usually indicated when the submission is accepted, and it is essential to follow them in detail. With regard to the style and format of the presentation there may be variability depending on the programme used to create the slides, the approach, etc., but a formal context should be maintained. It is good to be creative and create a presentation with impact, but as long as this does not affect the content and conforms to established standards. It is important to take into account the context in which the presentation will be given, the type of room or auditorium and the audience.

Before preparing the slides for the presentation, it is important to review the content, whether it is the previous summary ("abstract"), and to establish a small script with the order of the points to be presented in each slide. If you have graphic material (figures, tables, images) or articles that you want to cite, it is useful to centralise it so that it is easily available and you can choose the elements to include. With regard to the platforms available for the preparation of slides, there are more and more options besides PowerPoint, such as Prezzi, Canva, Filemaker, Visme, etc.

Style

If we have the freedom to choose the style of presentation there are some important aspects to consider[1,2]:

- White, plain backgrounds are preferable.
- Respect margins, align images or text boxes.
- Maintain a common theme and format, avoid mixing backgrounds or slide designs.
- Avoid overloading slides with too many animations, icons, clip-art, etc.
- Avoid complex transition effects between slides or too much animated input/output text.
- The font size should be appropriate for a good view in the room, and the font should be easy to read (Calibri, Tahoma,

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http://dx.doi.org/10.1016/j.cireng.2022.09.008

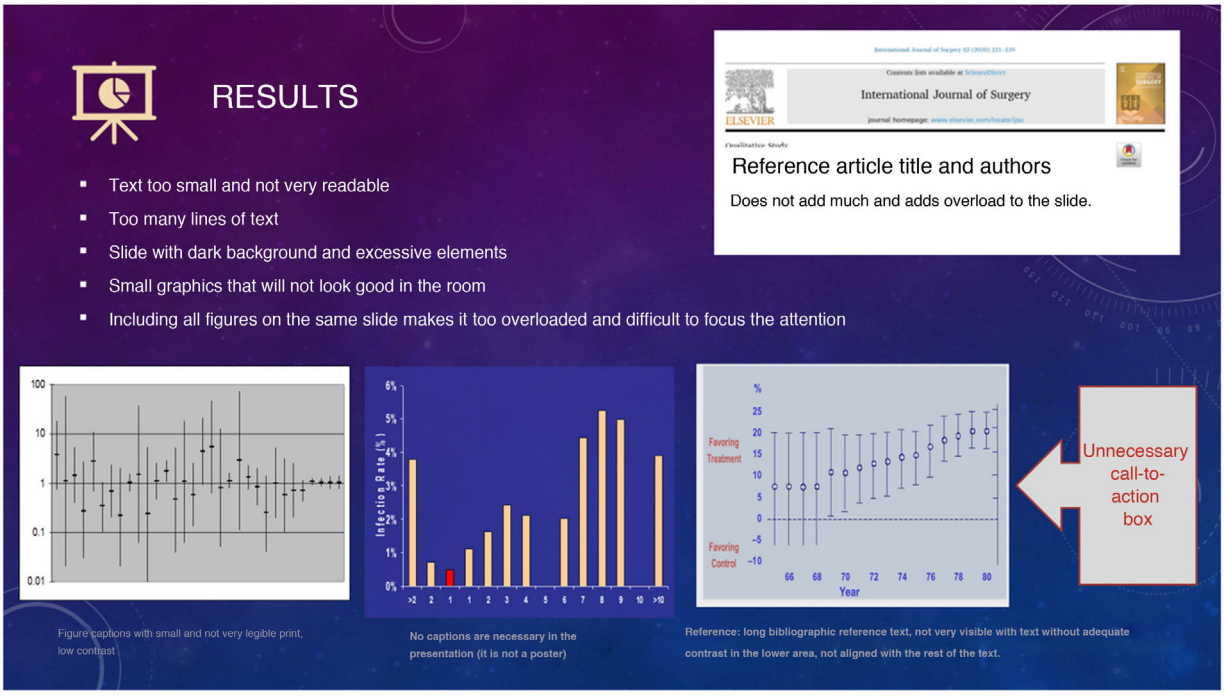

Fig. 1 – Some before-mentioned errors to be avoided in the preparation of a presentation.

etc.). If, when preparing the slide, the font size has to be reduced, it is probably necessary to eliminate text, not reduce its size.
- Use simple sentences, spaced far enough apart. Keep the line spacing of the text constant.
- Keep the position, colour and size of titles consistent between slides.
- If a logo or image is placed to appear on all slides, keep its position and size. It is best to include it directly in the template layout, not manually on each slide.
- Keep text formatting consistent (capital letters at the beginning of sentences, full stops at the end, etc.), and avoid excessive abbreviations.
- Check spelling mistakes, punctuation, typographical errors or unnecessary spaces.
- Avoid red or green text if possible (consideration for the audience, given the possibility of colour blindness) or other text colours that do not display correctly.

Fig. 1 contains an example of some of the above-mentioned errors to be avoided in the preparation of a presentation.

Presentation sections

Introduction

The introduction should be short. It is not intended to be an exhaustive overview of the topic in question, but rather to provide a brief background to the subject of our research. It may be useful to include a definition or clarify a key concept that is useful for a better understanding of our findings. Another tip is to start with an image, quote or question that captures the audience's attention and arouses interest.

Methods

It is essential to correctly define the methodology used in the study, as the value of the results will depend on its quality. The type and design of the study, how the data were evaluated, sample size, study period, variables included, etc. must be defined. The working hypothesis and the objectives (main and secondary) of the study should be very clear. This section can be a bit dry, so it is important to summarise the information and avoid including too much text on the slides. Where possible, pictures, diagrams or even a short explanatory video can be introduced.

Results

This is the most important section, as it is the point at which we present our own research, so it should be the central part of the presentation.[2] The results should be presented in an orderly fashion, ideally following the sequence of methods. It is important to use figures, tables or other graphical representations, but avoid overloading the slides. It is preferable to put one graph/figure per slide, so that it is clearly visible and the audience can focus their attention. It may be useful to present some of the concrete results in tables, but always avoid making them too large or complex, or making the content and text too small.

Conclusions

They should be clear and concise. It is essential that the conclusions are based on the results presented; they should not generalise or conclude on aspects or hypotheses that have not been demonstrated in this work. Short sentences should be used, summarising the most relevant aspects of the content presented and representing the "final message" that we want the viewer to remember. To end the presentation, it may be appropriate to use an image or a thank you to the audience or team, before moving on to questions.[3]

Rehearsing and practising

After completing the presentation, it is important to practise to ensure that the timing is right, all the necessary information is included and the information is presented in a coherent way. After the first few rehearsals it may be necessary to remove, add or revise elements of the presentation in order to achieve a proper flow of speech in harmony with the visual content.

Conclusion

In conclusion, the ultimate goal of a scientific oral communication should be to present the information about our research in an orderly, rigorous and effective way so that the audience assimilates it, arousing their interest. It is very important to simplify the message so that it is as clear as possible. Preparing a quality presentation takes time, both in form and content, and it is essential to rehearse to ensure that the objectives are met and an optimal final result is achieved.

Funding

None.

Conflict of interest

None.

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