

How to Compose, Write and Publish a Scientific or Professional Communication

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ABSTRACT

There is an ample number of recommendations, guides and monographs addressing the art of composing and publishing written, oral or visual communications in science and various professions. In order to write an article, authors have to follow certain rules. Presentation of the article (oral or poster presentation) also requires skill, meaning that you have to fulfill certain guidelines and regulations.

Keywords: article, oral presentation, poster presentation.

1. INTRODUCTION

There is an ample number of recommendations, guides and monographs addressing the art of composing and publishing written, oral or visual communications in science and various professions (see e. g. references 1-8).

Useful guidelines in our language are available on the internet, in monographs and as the instructions to authors in medical journals (e. g., see references 9-18). On the basis those guidelines, as well as from personal experience that I have acquired as author, mentor, reviewer, and above all as a chairman of the committee evaluating doctor-of-science and master-of-science theses at a medical faculty, I am glad, for this occasion, to present a personal view of essential steps in producing useful communications.

2. STEPS IN ARTICLE WRITING

Before embarking on the composing of a scientific or professional communication, observe following considerations:

1. What is the reason for your effort? Is there anything important or new that you would like to convey? Are you forced to write an article or deliver an oral presentation for the sake of personal promotion? Is the communication needed for your professional advancement? "Forced" communications are likely to miss the point.

2. Read relevant literature covering the field of your interest. Access journal databases (eg. PubMed, Web of Science, or Scopus (authorization is needed for the latter two). Ask for help your library service, if needed and if available. Pay attention to relevant and up-to-date communications. Consider meta-analyses. Information about actual knowledge and/or problems provides your work with appropriate background. Keep record of relevant articles, save their abstracts and/or jot down their summaries emphasizing points of your particular interest. This material will be used later when writing the Introduction and discussion of your communication.

3. Collect your data and summarize them in tables and/or graphs. Provide appropriate legends. Carry out statistical analysis. Try to make the tables and/or graphs (with their legends) self-explanatory. If needed, choose appropriate illustrations (scans, histology, etc) and provide explanatory legends. Keep eye on that material when writing the Results section.

4. Now set out to compose your communication by starting with the Summary, not the Introduction! This will help you make a general idea of what you are going to communicate before embarking on having it on paper in extenso. The summary may be amended later, after completing the communication. This summary may also be used

with the applications for scientific or professional meetings.

5. Compose the Material and Methods section. This helps you get going. Be meticulous, pay attention to details. Avoid detailed description of well-known routine procedures. Provide name(s) and address(es) of the manufactures and vendors. Keep in mind that detailed description of materials and methods shows your scientific sincerity.

6. Writing the Introduction is a demanding task. NEVER start by writing it the first. Otherwise you get entangled with (often) useless reiteration of known facts and are likely to lose momentum before embarking on the results. Write the Introduction after the Results section. Avoid redundant reiteration of common knowledge, give only a general outline of well-known facts; concentrate on the area of your work. Describe current state-of-the-art in your area of interest and emphasize problems, unsolved questions and controversies. Here you may resort to the material (abstracts, summaries) acquired by means of the literature search (see section 2).

7. Describe the Results looking at your tables, graphs and/or pictures. The material should be self-explanatory so that the text itself may point out to the essential facts only. Emphasize major findings.

8. Discussion should put your findings, observations or research into the perspective of the knowledge and facts outlined in the Introduction. Do not repeat results, rather explain and comment them. Concentrate on your contribution to the field. Discuss controversies.

9. Literature should be organized according to the Vancouver system. Be meticulous with citing! Avoid unnecessary or redundant citations. Consult the official list of journal title abbreviations.

10. Add Summary written before; if needed, improve it. Provide standard keywords (see Medical Standard Headings - MeSH). If needed, add summary in the national language (as required e.g. for dissertations) and provide translated MeSH titles.

10. Have your text edited by a language professional.

11. If you intend to publish a scientific article, choose appropriate journal taking into account its rank and scope. Consult the list of journals with their impact factors at. See useful advice at. Do not hesitate to proffer your manuscript to a good journal having a high impact factor; the editor may turn it down, but you are likely to receive useful review(s). Improved paper may then be proffered to a less prestigious journal. Do not proffer your paper simultaneously to two journals! It is allowed, however, to publish in domestic journal a translation of an article already published in an international journal, with proper reference to the original.

3. ORAL PRESENTATION

1. Organize your speech so as to observe the allotted time limit. Exercise aloud in advance!

2. If you use the PowerPoint, make the written text on slides as succinct as possible and legible from distance. Do not clog the slides with redundant text in small letters! Simplify tables and graphs, make them easily legible and understandable. Complicated graphs and tables with too many items cannot be understood by the audience. Avoid too many fonts, colours and other embellishments.

3. When speaking, address the audience and not the screen!

4. Summarize your presentation with a succinct repetition of your message

See useful advices in references 19 and 20.

4. POSTER PRESENTATIONS - GUIDELINES

1. Make the posters self-explanatory and legible from reasonable distance.

2. Emphasize the Aim and Conclusions of your work.

3. Do not clog the poster with differing fonts, too many colors and other embellishments, since that distracts from the message.


4. A short and easily legible abstract may be added.

See numerous advices, e.g., in references 21 - 25.

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