Writing the Discussion in a Research Paper

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Abstract This study describes the dos and don'ts of writing the discussion in research papers.

Keywords
- discussion
- highlights
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Introduction

"If the reader is to grasp what the writer means

The writer must understand what the reader needs."[1]

The "discussion" sums up all that you have done and the conclusion arrived at in the research work that you are describing.[2] A certain structure of writing is to be followed in writing the discussion to make it easily understandable and make your contribution worthwhile. The text in the discussion is often the most original part of all the text in the paper and therefore the most difficult to formulate. Following established guidelines in writing the discussion greatly improves readability and the chances of your paper being accepted.

This article takes potential authors through those steps.

The discussion is invariably preceded by the "results" section.

Therefore, it is a good idea to start the discussion with a dissection of the results. A good discussion analyses and discusses the results and does not just recapitulate the results (►**Fig. 1**).

1. Discuss the actual methodology of how patients and methods or materials and methods were selected and the positive and negative points of what you have done in this aspect.
2. Describe the salient features of the results and what they mean to the outcome of the research. An important aspect at this time is to discuss the "why" of the results. This gives an opportunity for others to build on the research that has been reported. Discuss them in the light of previous research on this topic and how they are different from or similar to them. If there are differences from previous reports, discuss the reasons for them; particularly, point out those that stand out as not correlating.
3. Next, stress not only the strong points of the paper but also the weakness in the methodology and analysis, suggesting modified strategies for future research.
4. Discuss the statistical methods used and their strong points and weaknesses. At this point, elaborate on whether the statistical methods used are appropriate for this type of work and the results therein. Specifically state whether your results justify the conclusions you have drawn. This is an important part of the discussion.[2]
5. Conclusion. Most journals recommend a conclusion. Keep it simple and short. As far as possible, use assertive sentences.[3]

For example: "There is no air in the coconut; it is a vacuum" rather than "It appears that there is a vacuum in the coconut rather than air."

These steps are summarized in ►**Fig. 1**.

The extent of discussion while making a case report is important. Unless your paper has new material, a case report is unlikely to get accepted. One way is to review the literature; the other is to dig deeper into the anatomic pathology or the physiologic pathology and the reason for the radiologic findings. Think laterally to contribute original thought.[4]

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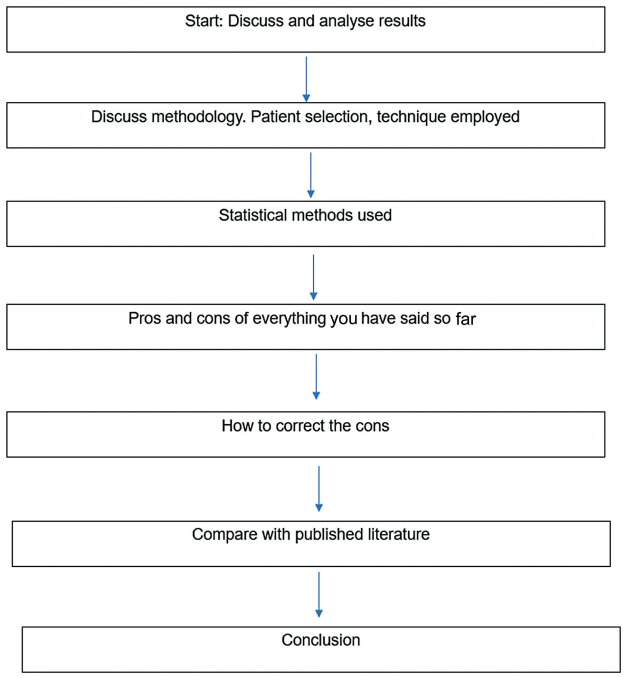

Fig. 1 Flowchart showing the sequence of writing the discussion.

I strongly recommend this approach—especially to postgraduates—get those gray cells going.

On the other hand, in a meta-analysis, greater emphasis should be placed on the section of published literature and elaborating the pros and cons.

A case series follows the same pattern as a case report.

When you publish original work such a new magnetic resonance (MR) sequence and its validity, emphasize the physics, the materials used, and the differences with published literature.

An analysis of interventional procedure has to have great emphasis on the technique used and details of material used and finally conclude with follow-up results from the interventional procedure,

Let us move to some of the basic rules to be followed while writing the discussion of an article.

Although there are general rules to be followed, every journal has specific requirements.

Therefore, keep the following points in mind:

1. Start off by reading the instructions to authors of that journal several times before you start writing. It is also a good idea to read discussions of a few articles in that journal to understand what the requirements are and what the style is.
2. Like the rest of the paper, if you do not follow the instructions to authors, it dramatically reduces the chances of your paper being accepted.
3. Pay particular attention to the way references are to be cited—including the type of brackets to be used for references or if references should it be a superscript. Follow every single "dot and dash" rules.
4. Do not plagiarize…. Do not plagiarize…. Do not….
   In today's world, journal editors have numerous ways to spot even small phrases of plagiarism. Any attempt to copy-paste may debar you from future publications in all journals.
5. Do not resort to the use of artificial intelligence (AI) chat boxes in writing your papers. These days, there are tools available to spot such writings.
6. Pay attention to the English language. Bad language irritates journal editors, many of whom do not have the patience to correct them. Ditto for editorial assistants. English is not our native language, and it is likely that written English is not formatted well. Therefore, after you are done with your paper, have the language checked by someone who knows English better than you do. Use a simple style with as few words as possible to convey sense. For example, say "now" rather than "at this point in time"[1] or say "talk to" instead of "have a conversation with." Do not use colloquial words and phrases.

After you finish writing the paper and the discussion, what do you do?

Nothing!

Put the paper away or 2 to 3 days, then read it again. You will yourself find the deficiencies—correct them.

It will take a few submissions before your first paper is accepted. In that case, almost always changes to the manuscript will be required by reviewers. Read the comments of the reviewers carefully and carry out the changes suggested by them as well as you can. Sometimes you may not agree with what the reviewers have stated. In such a situation, in the covering letter that you send back to the editor, mention why you have not carried out those changes.

These small things greatly increase the chances of your paper being accepted the second time around.

Best of luck with your next potential publication!

"We cannot succeed in making even a single sentence mean only one thing; we can only increase the odds that a large number of readers will tend to interpret our discourse according to our intentions."[1]

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None declared.

References

1 Day RA, Gastel B. How to Write and Publish a Scientific Paper. 7th ed. Cambridge: Cambridge University Press; 2017
2 Ramakantan R. Discussion in a research paper. Indian J Radiol Imaging 2007;17(03):148–149
3 Gopen GD, Swan JA. The science of scientific writing. Am Sci 1990; 78(06):550–558
4 Kalgaonkar SR, Ramakantan R. Pica and the radiologist: beyond the radiology report … digging deeper. Indian J Radiol Imaging 2018;28(03):330–332

