

# GUIDELINES FOR SCIENTIFIC MANUSCRIPT REVIEW

Many reviewers find this a helpful guide, particularly if they have not previously reviewed many scientific manuscripts. Don't feel obliged to use the checklist if you have your own technique for analyzing the manuscript's merits.

## Standards for Original Research Papers

The authors main job in writing a manuscript reporting an original research study is to answer the following questions, as clearly and concisely as possible:

- Why did you start? (Introduction)
- What did you do? (Methods)
- What answer did you get? (Results)
- What does it mean? (Discussion)

Each section of the paper needs to be just long enough and comprehensive enough to answer its main question, and should not contain elements of other sections or other unnecessary material. Here are some additional points that may facilitate review of the manuscript:

**TITLE:** This should indicate the specific content of the article and be informative when seen by itself in a table of contents or bibliography. It should include the main key words used in indexing.

**ABSTRACT:** This should be an informative miniature of the article, briefly presenting the main points, including the answers to the four questions stated above. It should be structured according to the journal's style.

**INTRODUCTION:** This should tell what was studied and why. The research question(s) the study sought to answer, or the hypothesis tested, should be stated specifically and clearly.

**METHODS:** This section tells how the research was carried out. It should provide enough detail so that a reader can (1) judge the validity of the study, and (2) replicate the study if desired. The Methods section also identifies any statistical tests and criteria for significance employed in the study.

**RESULTS:** This section presents the study's findings, including the statistical analysis. This section contains the evidence by which the author attempts to convince the reader, but should not contain discussion or other elements belonging in other sections.

**DISCUSSION:** In this section the author explains what he or she thinks the results of the study mean. This may require presentation of supportive evidence from previously published literature, as well as contradictory findings by other investigators and any limitations of the study. At the end of the Discussion the author should clearly state the intended conclusions to be drawn from the study.

**REFERENCES:** These should be appropriate for the study question, methods used, results, and discussion in both number and content, and they should be up to date.

**TABLES AND FIGURES:** These should be used to clarify and better depict the study's results, and should not simply duplicate data presented in the text. Tables should be clear, self-explanatory, and uncomplicated, as should figures, including their accompanying legends.

## Checklist

A YES answer means you are satisfied with the paper relative to that question. If you have no clear-cut answer, check the ? box and consider revision of the final manuscript. If you check the NO box, the manuscript need revision before submission for editorial review.

<b>INTRODUCTION</b>		<b>Yes</b>	<b>No</b>	<b>?</b>	<b>N.A.</b>
1.	Is the papers topic clearly identified?				
2.	Is the reason for doing the study given?				
3.	Is/Are the research question(s) clearly stated?				
4.	Is the background information adequate to introduce the research question?				
5.	Should everything in this section be in this paper?				
6.	Should everything in this section be here, rather than in another section of the paper?				
7.	Are adequate references cited for statements that require support from the published literature				
8.	Is the writing in this section clear?				
<b>METHODS</b>		<b>Yes</b>	<b>No</b>	<b>?</b>	<b>N.A.</b>
1.	Does the author tell why the particular research method was chosen?				
2.	Are the study design & execution described in enough detail so you can judge their validity and so a reader could replicate the study?				
3.	Were the research <i>design</i> and the <i>execution</i> of the study adequate to answer the research question(s)?				
4.	Were appropriate statistical tests chosen and identified in this section of the paper?				
5.	If references are needed to support anything in this section, are they cited and appropriate?				
6.	If illustrations, tables, or appendices would clarify the Methods section, are they provided and are they adequate?				
7.	Does everything in this section belong here, rather than elsewhere in this paper?				
8.	Is the writing in this section clear?				
<b>RESULTS</b>		<b>Yes</b>	<b>No</b>	<b>?</b>	<b>N.A.</b>
1.	Does this section provide both a general description of the results and specific representative data?				
2.	Are all the expected findings presented here?				
3.	Does this section avoid presenting unnecessary data?				
4.	Do the findings answer the research question(s)?				
5.	Are the data meaningful?				
6.	If tables or figures would clarify the presentation of the data, are such tables and figures provided?				
7.	If tables or figures are provided, are they necessary?				
8.	If tables or figures are provided, are they adequate?				
9.	If data are presented in tables or figures, does the text avoid presenting the same data?				
10.	If applicable, is appropriate statistical analysis of the data provided?				

11.	The Results section should not repeat any of the description of the methodology. Has the author followed that rule?				
12.	Does everything in this section belong <i>here</i> , rather than in another section of this paper?				
13.	Is the writing in this section succinct and clear?				
<b>DISCUSSION</b>		<b>Yes</b>	<b>No</b>	<b>?</b>	<b>N.A.</b>
1.	Does the discussion present the principles, relationships, and generalizations shown by the results?				
2.	Do you think the discussion avoids giving any false meaning to the results?				
3.	If it should do so, does this section point out any exceptions to the findings or lack of correlation in the results?				
4.	If it should do so, does the discussion acknowledge any limitations of the study?				
5.	If it should do so, does this section show how the study findings agree or contrast with previously published reports?				
6.	If it should do so, does this section discuss the theoretical application of the findings?				
7.	If it should do so, does this section discuss the practical or clinical application of the findings?				
8.	Are references appropriately cited?				
9.	Do you agree with the authors interpretation of the meaning and importance of the findings of this study?				
10.	Is <i>unsupported</i> speculation avoided? Is <i>over-</i> or <i>under-</i> emphasis of ideas avoided?				
11.	Does the Discussion (or a separate "Conclusions" section of the paper) clearly state the author's conclusions?				
12.	Does the Discussion avoid recapitulating the results?				
13.	Is all of the Discussion relevant?				
14.	Is the writing in this section clear?				
<b>MISCELLANEOUS</b>		<b>Yes</b>	<b>No</b>	<b>?</b>	<b>N.A.</b>
1.	Are the mathematics in this paper correct?				
2.	Are appropriate descriptions given of how calculated values were determined?				
3.	Are the figure legends adequate?				
4.	Are the tables' titles adequate?				
5.	Is medical/technical terminology used correctly throughout the paper?				
6.	Does the paper's title accurately reflect the paper's content?				
7.	Is the abstract informative--briefly outlining the method and giving <i>specific results</i> and <i>conclusions</i> ?				

## Typical Notes From Reviewer To Editor:

Please indicate your recommendation about the disposition of the manuscript. This recommendation sheet will **not** be sent to the author.

	The paper should be <b>accepted for publication</b> .
	The paper <b>could be published with minor revisions</b> indicated in my review.
	The paper should be <b>rejected in its present form</b> , but could potentially be published with <b>major revisions</b> indicated in my review.
	The paper should be <b>rejected</b> for the reasons indicated in my review.

Do you think **statistical consultation** would be helpful in reviewing the paper? Yes \_\_\_\_ No \_\_\_\_

If the Editor recommends revision and the author submits a revised manuscript, would you be willing to **review the revision**? Yes \_\_\_\_ No \_\_\_\_

If you believe the paper should be published, do you think that this paper, if published, would merit an accompanying **Editorial** in the same issue? Yes \_\_\_\_ No \_\_\_\_

If yes, can you suggest an author for the Editorial? \_\_\_\_\_

Signed \_\_\_\_\_ Date \_\_\_\_\_