

TIPS ON REVIEWING PAPERS

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With considerable material modified from **Reviewer Guidelines - How to Review a Journal Article: Suggestions for First-Time Reviewers and Reminders for Seasoned Experts** - <https://www.ncfr.org/jmf/jmf-reviewers/reviewer-guidelines>

By **Vern L. Bengtson**, University of Southern California,
and **Shelley M. MacDermid**, Purdue University

How I review a paper

- Read the article fairly quickly start to finish
- Ask the following questions
 1. Can I understand the paper?
 2. Would this paper be of interest to the audience of the journal? Is it sufficiently interesting and innovative?
 3. Is there a major experimental design flaw that can't be corrected?
 4. Is the paper an appropriate length and carefully edited?
 5. Are all the figures and tables necessary and understandable?
- If answers to 1-2 are no or 3 is yes then I write a short but thorough review of the major issues
 - There is no point in spending a lot of time on a paper if it's not publishable
 - After writing the review I reread the paper double checking that my assessment is correct, looking for illustrative examples, and making sure I didn't miss something.

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 4. Is the paper an appropriate length and carefully edited?
 5. Are the figures and tables necessary and understandable?
- If answers 1-3 are ok, but answer to 4 or 5 is no then it depends on how sloppy and lengthy the paper seems, whether I write a detailed review.

Take home point to authors – make sure your manuscript is as carefully prepared as possible so you don't have grumpy reviewers

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 5. Are the figures and tables necessary and understandable?
- If everything is okay with questions 1-5, I give the paper a careful read making notes as I go.
 - Authors - remember to include page and line numbers to refer back to specific places.

Overall - Look for the intellectual plot line

- What do the researchers want to find out?
- Why is that important to investigate or understand?
- How are the researchers investigating this? Are their research methods appropriate and adequate to the task?
- What do they claim to have found out? Are the findings clearly stated?
- How does this advance knowledge in the field? How well do the researchers place their findings within the context of ongoing scholarly inquiry about this topic?

From Bengston & MacDermid

Can you find answers to the above questions quickly and easily? Can you trace the logic of investigation consistently from the opening paragraphs to the conclusion?

Then go back to the introduction of the article. Are the research questions specifically stated? Is it clear what the authors want to find out?

Literature review

- Do the authors present a convincing line of argument here--or are they are just citing sources that may be important, without a clear underlying logic?
- Do the authors integrate the ideas of previous work, noting where the gaps in the literature are and how their research will fill them?
- Do the authors cite a breadth of literature and not just their own papers or papers just from their specific ecosystem type?

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Methods

- Do the authors clearly describe their research strategies? Do they present sufficient detail about the sample from which they have collected data; the operationalization of measures they have used; and the adequacy of these measures? The measures should be clearly matched to the research questions or the hypotheses.
- Are their choices of methods adequate to find out what they want to find out in this study? Would other methods provide a substantial improvement; if so, would employing these methods be feasible or practical?
- Are appropriate statistical analyses used?

Research results

- Does the results section tell a story--taking the reader from the research questions posed earlier to their answers in the data? Is the logic clear?
- Are the tables and figures clear and succinct? Can they be "read" easily for major findings?
- Do the authors present too many tables or figures in the form of undigested findings? Are all of them necessary in order to tell the story of this research inquiry; or can some be combined? Remember that tables and figures are very expensive (from the standpoint of the journal) and that undigested data obscure rather than advance the message of the manuscript.
- Are the results presented both statistically and substantively meaningful?

Discussion

- Do the authors present here a concise and accurate summary of their major findings? Does their interpretations fairly represent the data as presented earlier in the article?
- Do they attempt to integrate these findings in the context of a broader scholarly debate about these issues? Specifically: Do they bring the findings back to the previous literature reviewed?
- Have they gone beyond presenting facts--data--and made an effort to present explanations--understanding? Have they responded to the conceptual or theoretical problems that were raised in the introduction? This is how theory is developed.
- Do the authors thoughtfully address the limitations of their study?

Writing style

- Is the writing clear? Do the authors communicate their ideas using direct, straightforward, and unambiguous words and phrases? Have they avoided jargon (statistical or conceptual) that would interfere with communication? Are topic sentences clear?
- Is the writing concise? Are too many words or paragraphs or sections used to present what could be communicated more simply?
- Is the grammar correct? This is not merely a technical issue of grammar to be dealt with by a copy-editor down the line. Rather this important to successfully communicate a set of ideas to an audience.

Tone to take when writing a review

"A good review is supportive, constructive, thoughtful, and fair. It identifies both strengths and weaknesses, and offers concrete suggestions for improvements. It acknowledges the reviewer's biases where appropriate, and justifies the reviewer's conclusions.

A bad review is superficial, nasty, petty, self-serving, or arrogant. It indulges the reviewer's biases with no justification. It focuses exclusively on weaknesses and offers no specific suggestions for improvement." – from Bengston and MacDermid

Remember that you are trying to convince the author and managing editor of your points, and help the author to improve the paper

The author probably spent a lot of time preparing the paper and that author could be you.

General layout of reviews –comments for authors

- Brief summary of what you think the paper is trying to achieve and something about what is good or innovative about the paper.
- List major concerns/issues to be addressed citing examples to illustrate your point.
 - Framing issues
 - Experimental design concerns
 - State hypotheses not being tested
 - Inappropriate or additional data analyses
 - Extraneous data
 - Overall length or grammar issues

General layout of reviews – comments for authors

- Brief summary of what you think the paper is trying to achieve and something about what is good or innovative about the paper.
- List major concerns/issues to be addressed citing examples to illustrate your point.
- (If paper is potentially publishable) make detailed recommendations
 - Wording changes
 - Specific sentences that aren't clear
 - Experimental design details that are missing.
 - Minor suggestions to cut length, including tables and figures.
 - Are there a few relevant citations missing?

General layout of reviews – comments for editor

- Make a clear recommendation about paper. If I'm "on the fence" about a paper I explain it here.
- If you don't feel a paper is appropriate for a journal be clear about it as there's no point in wasting the author's time.
- Usually my comments to the editor are short if I've made the case to the authors
- I may reiterate my main points about a problematic paper in a tone not appropriate for the authors.
