

Advice for peer reviewers

David Wagner (<http://davewagner.ca>)

Updated May 17, 2024

Sometimes people ask for guidance on writing reviews of manuscripts for scholarly journals or other publications. Here I provide some advice:

- I point to some helpful publications on peer review,
- I describe my own process when I do peer review,
- I answer common questions reviewers have asked me.

Through my experience as a journal editor I read and interpret many reviews. My biggest concern/complaint about reviewing practices is that reviews tend to be deficit-based. The reviewers focus their reviews on pointing out things that they see as missing or out of place. Deficit-based assessment compares new work to some normative standard, and fails to appreciate what is new and innovative. Such an approach is a problem because it says no to important work. Further, normative, deficit-based assessment can also approve marginal research just because it is written clearly and in a familiar way. This is also a problem because it says yes to marginal work.

- An appreciative review describes the contribution a paper brings to the field. (See point 2 in my process described below.)
- An appreciative review may ask the authors to include more information, but this request is to help the authors give readers the information they need to fully appreciate the research that is being described. (See point 3 in my process described below.)

I hope this description of peer review is helpful. If you have suggestions for how to improve it, I would welcome them, to improve my own peer reviewing and to improve the guidance I give others. If you want to refer someone to this advice, use this link:

davewagner.ca/index.html#reviews

Some publications that give guidance to reviewers:

- In 2021, the editors of *Educational Studies in Mathematics*, wrote an editorial on writing reviews. This is especially helpful given that it is underpinned by the dialogue and experience of eleven of us: "[Writing reviews: Perspectives from the editors of *Educational Studies in Mathematics*](#)."
- Vilma Mesa and I published a paper in 2019, which includes some description of a good peer review: "[Behind the door: A critical look at the process of publication in *Educational Studies in Mathematics*](#)". Vilma and I interviewed all the editors of *Educational Studies in Mathematics* (the ones still living and willing). One thing we asked them is what reviewers have paid attention to over the years, and what makes a good review. Sections 3.3, 4.2, and 4.3 are most focused on reviews.
- The Mathematics Education and Society (MES) website gives [guidelines for a good review](#). These guidelines are specific to reviews for MES conference papers, but most of the principles are important in any scholarly context. The section on compatibility with MES aims could be substituted with the aims of whatever publication context for which we are reviewing. (I have participated in writing this set of guidelines for MES.)

This is my usual process for reviewing a manuscript:

1. I read the manuscript making notes on it (these notes tend to be very critical). I do not share these notes with the authors or editors.
2. After reading, I think about what I like in the manuscript, and most importantly, what its contribution to the field could be. In other words, I think about why someone in a different context/country would want to read about this research. Some possible ways that a paper can make a contribution to the field include:
 - The paper describes a new perspective that is not mainstream in the field. In particular, it is important to value papers that raise the voices of people who are too-often marginalized.
 - The paper describes a context that is not well-known in the field.
 - The paper identifies new concepts or distinctions that shed light on phenomena or contexts that are already important to the field (these could be methodological or theoretical innovations).
 - The paper identifies phenomena that have potential importance to the field (e.g., common phenomena that have not been considered critically).
 - The paper raises and addresses questions that are new to the field.
3. I ask myself what will need to be changed/added in order for the manuscript to realize its potential contribution to the field.
4. I begin a draft review letter with a positive statement about what I like and what I foresee being the paper's contribution.
5. I identify in brief my most significant concerns, followed by my advice to the editor (reject, ask for major revisions, ask for minor revisions, accept). It is rare that I would see a manuscript as acceptable without revisions on the first submission (in fact, it has never happened in the hundreds of reviews I have written). Usually I recommend major revisions or rejection on a first draft of a manuscript.
6. I describe my significant concerns in order of importance. (I number them to help the author and editor follow.) I write these based on my memory of reading the manuscript and my concerns.
7. I go through my notes on the manuscript to fill in details on my numbered concerns. I also make a list of small issues that will follow my numbered concerns. This is things like typos, formatting things, word choice (sometimes a word choice would be a significant concern though), with explicit reference to where the issue is in the manuscript (page number and line number if possible).
8. I edit my concerns to make them coherent and clear, trying to give explicit advice (or options) on how the author could address each concern.
9. I reconsider my recommendation to the editor based on the concerns I have identified. The key question: How possible is it for the authors to address these concerns with the data and methods they have used?
10. I go through the manuscript again to make sure that my review makes sense, and edit the review as necessary.
11. I proofread my review.

Note: If the manuscript is a revision and I was a reviewer in a previous draft, I read the response to reviews before following the above process. I will want to check that the authors addressed the concerns raised last time, and comment on the quality of the response to reviewer and editor concerns. (Often, other reviewers will have raised concerns that I had

not noticed.) If I had not reviewed an earlier draft, I don't look at the response to reviews until after step 7 above so that I have fresh eyes on the manuscript.

Questions reviewers have asked me:

1. *I am not sure whether to recommend major or minor revisions. How do I decide this? (Or major revisions vs, rejection)*
 - As an editor, I am not so worried about what recommendation the reviewers choose. I go more by their reasons. This is because what one person calls minor revisions, others will call major, or what someone calls major revisions, someone else calls rejection-worthy, etc. I think the key questions to ask yourself in reviewing are:
 - Do I want to see this research in this journal? (if so, choose at least “reject but encourage resubmission of a new paper on this research”)
 - Do I think the authors will be able to make revisions in a reasonable amount of time, to bring the paper to the quality expected in the journal? (If so, choose at least “major revisions”)
 - Do I want to see the revised paper or do I think the editor can adjudicate the revisions made by the author without further help from reviewers? (this question distinguishes between minor and major revisions)
2. *Is it okay to refer authors to my own work? Is that ethical?*
 - Many reviewers point to their own work. Of course, you know your work really well, and you know how it would be relevant to the work of the paper you review. Given that the editor chose you to do a review due to the relevance of your work, it would be rather surprising if your work would NOT be useful to the authors. So it is ethical in my opinion (but I understand that some people disagree). How people do it:
 - Some are brash, pointing to their work only.
 - Some point to the work of multiple authors, including themselves.
 - Some describe a way of looking at the literature without mentioning names, but in a way that would point to their own work. For example, they might point to a special issue on the topic, and that special issue includes one of their articles.
 - Some reveal their identity intentionally in their review, which makes the connection to their own research feel less underhanded.
 - In a paper that I handled as editor once, one of the reviewers pointed to multiple articles by another scholar. Ironically, that other scholar was also a reviewer of the paper, and did not point the author to their own work. So maybe the author guessed that this person was one of the reviewers, but probably would have guessed wrong on which reviewer!