Tips on Manuscript Review
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Reviewing manuscripts can make you a better writer and is a professional responsibility of those engaged in the scientific endeavor. Reviewing manuscripts should be viewed as an opportunity to help authors rather than a burden on your time.

Resources are available to help in the review process. Under any Society homepage, select “Publications” from the main menu and then click on the “Editors/Reviewers” link to the right. The associate editor who assigned the manuscript can give advice on reviewing issues, and further information is provided in Benos et al. (2003) and Baveye et al. (2009). If you would like to volunteer to review manuscripts for our Society journals, see the website or contact the journal editor directly.

The primary role of the reviewer is to evaluate the science of the manuscript, not to concentrate too much on the English or the format or to try to impress the editor by finding reasons to release. We all want helpful reviews on our own manuscripts, so we should also provide helpful reviews on the manuscripts of others. When you find problems with a manuscript, attempt to offer constructive advice rather than negative criticism. A good review requires reading the manuscript at least a few times.

Determine whether the manuscript is a regular research paper or if it is an issues, perspectives, or review paper. Do not expect an issues or review paper to have the same format as a research paper. For research papers, evaluate each component for completeness, clarity, and scientific soundness.

The abstract should include components of the paper as a whole: justification statement, objective statement, short summary of methodology, quantitative results, and concluding statement.

The introduction should explain why the study is needed without including excessive detail. An objective or hypothesis statement should appear at the end of the introduction. The objective should intend to compare, show a trend, or answer a hypothesis statement. Merely measuring or monitoring is not a scientific objective.

Does the materials and methods section, either alone or with citations, provide enough information to replicate the study? Do not require the authors to rewrite the details of methodology that has already been published. A short summary with citation is enough.

For the results and discussion section, consider if data are presented in the clearest way (text, tables, or figures). The same data should not be presented in multiple formats. Are data summarized with adequate statistics? Readers do not want graphs for each replicate or data point given in a table. Supplemental material provided online and not in print should be used for extensive raw data.

Is the discussion of the results clear and concise, answering the stated objective or hypothesis? Do the conclusions show the value of the study for science? Even negative results provide useful information.

For review, issues, or perspective papers, most journals are not looking for an exhaustive treatment of the topic, but instead a focus on a specific aspect, especially recent contributions. The previous studies should be analyzed, not merely summarized.

Just as in personal interaction, civility is important when writing a review. A reviewer should adhere to the “golden rule” to treat all manuscripts in the same manner that you would want your own to be treated.

References

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